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# Detecting Devices

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**Technical Information**

can be found at
www.siemens.com/industrial-controls/support
under Product List
- Technical Specifications

under Entry List
- Updates
- Downloads
- FAQ
- Manuals
- Characteristic curves
- Certificates

and at
www.siemens.com/industrial-controls/configurators
- Configurators

*Note:*
*For safety characteristics for position switches and hinge switches, see Appendix → "Standards and Approvals"*

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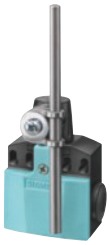
## Introduction

### Overview

3SE5 23., 3SF1 2.4


3SE5 24., 3SF1 244

3SE5 11., 3SF1 114

3SE5 12., 3SF1 124

3SE5 232, 3SF1 2.4

3SE5 112, 3SF1 1.4

3SE5 250

| | Position switches, standard | | | | Hinge switches | | Open-type |
|---|---|---|---|---|---|---|---|
| **Enclosures** | | | | | | | |
| Plastic | ✔ | ✔ | -- | -- | ✔ | -- | ✔ |
| Metal | ✔ | -- | ✔ | ✔ | ✔ | ✔ | |
| Dimensions (W x H x D) in mm | 31 × 68 × 33 | 50 × 53 × 33 | 40 × 78 × 38 | 56 × 78 × 38 | 31 × 68 × 33 | 40 × 78 × 38 | 30 × 48,5 × 20 |
| Degree of protection | IP65, IP66/IP67 | IP66/IP67 | IP66/IP67 | IP66/IP67 | IP65 | IP66/IP67 | IP10 or IP20 |
| **Standards** IEC 60947-5-1 | Mounting and operating points acc. to EN 50047 | Operating points acc. to EN 50047 | Mounting and operating points acc. to EN 50041 | Operating points acc. to EN 50041 | Mounting and operating points acc. to EN 50047 | Mounting and operating points acc. to EN 50041 | Mounting and operating points acc. to EN 50047 |
| **Approvals** | CE, UL, CSA, CCC | | CE, UL, CSA, CCC | | CE, UL, CSA, CCC | | |
| **Contact blocks** | | | | | | | |
| 2 slow-action contacts | 1 NO + 1 NC, 2 NC | | 1 NO + 1 NC, 2 NC | | -- | | 1 NO + 1 NC |
| 2 snap-action contacts | 1 NO + 1 NC | | 1 NO + 1 NC | | 1 NO + 1 NC | | 1 NO + 1 NC |
| 2 snap-action contacts, short stroke | 1 NO + 1 NC | | ✔ | | -- | | ✔ |
| 2 snap-action contacts with 2 × 2 mm contact gap | 1 NO + 1 NC | | ✔ | | -- | | ✔ |
| 3 slow-action contacts | 1 NO + 2 NC, 2 NO + 1 NC | | 1 NO + 2 NC, 2 NO + 1 NC | | -- | | 1 NO + 2 NC |
| • With make-before-break | 1 NO + 2 NC | | 1 NO + 2 NC | | -- | | 1 NO + 2 NC |
| 3 snap-action contacts | 1 NO + 2 NC | | 1 NO + 2 NC | | 1 NO + 2 NC | | 1 NO + 2 NC |
| **Special features** | | | | | | | |
| LED status display | ✔ | | ✔ | | ✔ | | -- |
| Increased corrosion protection | ✔ | | ✔ | | ✔ | | -- |
| **Explosion protection (ATEX)** | -- | | ✔ | | -- | ✔ | -- |
| **ASIsafe integrated** | ✔ | | ✔ | | ✔ | | -- |
| **Electrical specifications** | | | | | | | |
| Insulation voltage $U_i$ | 400 V | | 400 V | | 400 V | | 400 V |
| Conventional thermal current $I_{the}$ | 6 A/10 A (3-/2-pole) | | 6 A/10 A (3-/2-pole) | | 6 A/10 A (3-/2-pole) | | 6 A |
| **Terminals** | | | | | | | |
| Cable entry | 1 × M20 × 1.5 | 2 × M20 × 1.5 | 1 × M20 × 1.5 | 3 × M20 × 1.5 | 1 × M20 × 1.5 | 1 × M20 × 1.5 | -- |
| M12 connector socket 4-, 5- or 8-pole | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | -- |
| Connector socket, 6-pole + PE | -- | -- | ✔ | ✔ | -- | -- | -- |
| **Actuators** | | | | | | | |
| Rounded plungers and roller plungers | ✔ | | ✔ | | -- | | ✔ |
| Roller and angular roller levers | ✔ | | ✔ | | -- | | -- |
| Spring rod | ✔ | | ✔ | | -- | | -- |
| Twist levers and rod actuators | ✔ | | ✔ | | -- | | -- |
| Fork lever | -- | | ✔ | | -- | | -- |
| Hinges for mounting | -- | | -- | | ✔ | | -- |
| **Page** | | | | | | | |
| Complete units | 8/20 | 8/24 | 8/34 | 8/38, 8/44 | 8/66 | 8/67 | 8/48 |
| Modular system | 8/22 | 8/26 | 8/36 | 8/40 | -- | -- | -- |
| Ambient temperature –40 °C | 8/28 | 8/28 | 8/42 | 8/42 | -- | -- | -- |
| ASIsafe | 8/74 | 8/74 | 8/76 | 8/76 | 8/85 | 8/86 | -- |
| ATEX | -- | -- | 8/69 | 8/69 | -- | 8/72 | -- |

✔ = Available  -- Not available

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**3SE5 232, 3SE5 242, 3SF1 2.4**

**3SE5 112, 3SE5 122, 3SF1 1.4**

**3SE5 322, 3SE5 312, 3SF1 3.4**

**3SE6**

| | Position switches with separate actuator | | Position switches with solenoid interlocking | Magnetically operated switches |
|---|---|---|---|---|
| **Enclosures** | | | | |
| Plastic | ✔ | -- | ✔ | ✔ |
| Metal | ✔ | ✔ | ✔ | -- |
| Dimensions (W x H x D) in mm | 31 × 68 × 33,<br>50 × 53 × 33 | 40 × 78 × 38,<br>56 × 78 × 38 | 54 × 185 × 44 | M30 × 44,<br>19 × 33 × 13,<br>25 × 88 × 13 |
| Degree of protection | IP65, IP66/IP67 | IP66/IP67 | IP66/IP67 | IP67 |
| **Standards**<br>IEC 60947-5-1 | Mounting<br>acc. to EN 50047 | Mounting<br>acc. to EN 50041 | EN 1088,<br>GS-ET 19 | Category 3 or 4<br>acc. to ISO 13849-1 (EN 954-1) |
| **Approvals** | CE, TÜV, UL, CSA, CCC | | CE, TÜV, UL, CSA, CCC | CE, TÜV, UL, CSA |
| **Contact blocks** | | | | |
| 2 slow-action contacts | 1 NO + 1 NC | | -- | -- |
| 2 snap-action contacts | -- | | -- | -- |
| 3 slow-action contacts | 1 NO + 2 NC | | -- | -- |
| 3 snap-action contacts | -- | | -- | -- |
| 6 slow-action contacts | -- | | 2 × (1 NO + 2 NC) | -- |
| Reed contacts | -- | | -- | 1 NO + 1 NC,<br>2 NC |
| **Special features** | | | | |
| LED status display | ✔ | | ✔ | -- |
| Increased corrosion protection | ✔ | | ✔ | -- |
| **Explosion protection (ATEX)** | ✔ | | -- | -- |
| **ASIsafe integrated** | ✔ | | ✔ | -- |
| **Electrical specifications** | | | | |
| Insulation voltage $U_i$ | 400 V | | 400 V | -- |
| Conventional thermal current $I_{the}$ | 6 A | | 6 A | -- |
| **Terminals** | | | | |
| Cable entry | 1 × M20 × 1.5,<br>2 × M20 × 1.5 | 1 × M20 × 1.5,<br>3 × M20 × 1.5 | 3 × M20 × 1.5 | -- |
| M12 connector socket, 4 or 5-pole | ✔ | ✔ | ✔ | ✔ |
| Molded cables | -- | -- | -- | ✔ |
| AS-Interface | ✔ | ✔ | ✔ | ✔ (through I/O module) |
| **Actuators** | | | | |
| Separate actuators | ✔ | | ✔ | -- |
| **Page** | | | | |
| Complete units | 8/54 | 8/55 | 8/61, 8/62 | -- |
| Modular system | -- | -- | -- | 8/87 |
| ASIsafe | 8/79 | 8/80 | 8/83, 8/84 | 8/87 |
| ATEX | -- | 8/72 | -- | -- |

✔ Available -- Not available

*Note:*
*For safety characteristics see "Appendix"*
*→ "Standards and approvals" → "Overview"*

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## Conversion to 3SE5, 3SF1

### Overview

*3SE2 ---> 3SE5 position switches*

Position switches from the 3SE2 series can be converted to the new switches of the 3SE5 series with the help of this table.

In the 3SE5 series you can choose between complete units and the modular system (basic switch and operating mechanism are available separately) (see page 8/19).

| Old Order No. | New Order No. | New Order No. – modular system | | |
|---|---|---|---|---|
| 3SE2 | Complete units | Basic switches | Operating mechanisms | Levers |
| **Standard switches, plastic enclosure** | | | | |
| 3SE2 200-0C | 3SE5232-0BC05 | -- | -- | -- |
| 3SE2 200-0D | 3SE5232-0BD03 | 3SE5232-0BC05 | 3SE5000-0AD03 | -- |
| 3SE2 200-0DV00-0AA3 | -- | 3SE5232-0BC05 | 3SE5000-0AD04 | -- |
| 3SE2 200-0E | 3SE5232-0BE10 | 3SE5232-0BC05 | 3SE5000-0AE10 | -- |
| 3SE2 200-0EV00-0AA3 | -- | 3SE5232-0BC05 | 3SE5000-0AE11 | -- |
| 3SE2 200-0F | 3SE5232-0BF10 | 3SE5232-0BC05 | 3SE5000-0AF10 | -- |
| 3SE2 200-0G | 3SE5232-0BK21 | 3SE5232-0BC05 | 3SE5000-0AK00 | 3SE5000-0AA21 |
| 3SE2 200-0GV00-0AG7 | -- | 3SE5232-0BC05 | 3SE5000-0AK00 | 3SE5000-0AA22 |
| 3SE2 200-0L | -- | 3SE5232-0BC05 | 3SE5000-0AD10 | -- |
| 3SE2 200-0M | -- | 3SE5232-0BC05 | 3SE5000-0AD10 | -- |
| 3SE2 200-0MV00-0AA3 | | 3SE5232-0BC05 | 3SE5000-0AD11 | -- |
| 3SE2 200-0S | -- | 3SE5232-0BC05 | 3SE5000-0AK00 | 3SE5000-0AA81 |
| 3SE2 200-0U | 3SE5232-0BK50 | 3SE5232-0BC05 | 3SE5000-0AK00 | 3SE5000-0AA50 |
| 3SE2 200-0UV00-0AG7 | -- | 3SE5232-0BC05 | 3SE5000-0AK00 | 3SE5000-0AA51 |
| 3SE2 200-0V | -- | 3SE5232-0BC05 | 3SE5000-0AK00 | 3SE5000-0AA80 |
| 3SE2 200-0W | -- | 3SE5232-0BC05 | 3SE5000-0AK00 | 3SE5000-0AA82 |
| 3SE2 200-0WV00-0AH0 | -- | 3SE5232-0BC05 | 3SE5000-0AK00 | 3SE5000-0AA82 |
| 3SE2 200-0WV00-0AL8 | -- | 3SE5232-0BC05 | 3SE5000-0AK00 | 3SE5000-0AA83 |
| 3SE2 200-0XC | 3SE5232-0BC05 | -- | -- | -- |
| 3SE2 200-0XG | 3SE5232-0BK21 | 3SE5232-0BC05 | 3SE5000-0AK00 | 3SE5000-0AA21 |
| 3SE2 200-0XJ | 3SE5232-0BD03 | 3SE5232-0BC05 | 3SE5000-0AD03 | -- |
| 3SE2 200-1C | 3SE5232-0HC05 | -- | -- | -- |
| 3SE2 200-1CV00-0AC4 | 3SE5234-0HC05-1AC4 | -- | -- | -- |
| 3SE2 200-1CV00-0AH0 | 3SE5232-0HC05 | -- | -- | -- |
| 3SE2 200-1CV00-0AH1 | 3SE5232-0HC05 | -- | -- | -- |
| 3SE2 200-1CV01 | 3SE5232-0FC05 | -- | -- | -- |
| 3SE2 200-1CV02 | 3SE5232-0GC05 | -- | -- | -- |
| 3SE2 200-1D | 3SE5232-0HD03 | 3SE5232-0HC05 | 3SE5000-0AD03 | -- |
| 3SE2 200-1DV00-0AA3 | -- | 3SE5232-0HC05 | 3SE5000-0AD04 | -- |
| 3SE2 200-1DV00-0AC4 | 3SE5234-0HD03-1AC4 | 3SE5234-0HC05-1AC4 | 3SE5000-0AD03 | -- |
| 3SE2 200-1E | 3SE5232-0HE10 | 3SE5232-0HC05 | 3SE5000-0AE10 | -- |
| 3SE2 200-1EV00-0AA3 | -- | 3SE5232-0HC05 | 3SE5000-0AE11 | -- |
| 3SE2 200-1EV00-0AC4 | -- | 3SE5234-0HC05-1AC4 | 3SE5000-0AE10 | -- |
| 3SE2 200-1EV00-0AG5 | 3SE5232-0HE10 | 3SE5232-0HC05 | 3SE5000-0AE10 | -- |
| 3SE2 200-1EV00-0AK0 | 3SE5232-0CE12-1CA0 | 3SE5232-0CC05-1CA0 | 3SE5000-0AE12 | -- |
| 3SE2 200-1F | 3SE5232-0HF10 | 3SE5232-0HC05 | 3SE5000-0AF10 | -- |
| 3SE2 200-1FV00-0AA3 | -- | 3SE5232-0HC05 | 3SE5000-0AF11 | -- |
| 3SE2 200-1G | 3SE5232-0HK21 | 3SE5232-0HC05 | 3SE5000-0AK00 | 3SE5000-0AA21 |
| 3SE2 200-1GA10 | 3SE5232-0HU21 | 3SE5232-0HC05 | 3SE5000-0AU21 | -- |
| 3SE2 200-1GA11 | 3SE5232-0HU22 | 3SE5232-0HC05 | 3SE5000-0AU22 | -- |
| 3SE2 200-1GV00-0AA3 | -- | 3SE5232-0HC05 | 3SE5000-0AK00 | 3SE5000-0AA22 |
| 3SE2 200-1GV00-0AA5 | 3SE5232-0HK25 | 3SE5232-0HC05 | 3SE5000-0AK00 | 3SE5000-0AA25 |
| 3SE2 200-1GV00-0AC4 | -- | 3SE5234-0HC05-1AC4 | 3SE5000-0AK00 | 3SE5000-0AA21 |
| 3SE2 200-1GV00-0AH8 | -- | 3SE5232-0HC05 | 3SE5000-0AK00 | 3SE5000-0AA22 |
| 3SE2 200-1L | 3SE5232-0HD10 | 3SE5232-0HC05 | 3SE5000-0AD10 | -- |
| 3SE2 200-1M | 3SE5232-0HD10 | 3SE5232-0HC05 | 3SE5000-0AD10 | -- |
| 3SE2 200-1R | 3SE5232-0HR01 | 3SE5232-0HC05 | 3SE5000-0AR01 | -- |
| 3SE2 200-1RV00-0AH0 | 3SE5232-0HR01 | 3SE5232-0HC05 | 3SE5000-0AR01 | -- |
| 3SE2 200-1S | -- | 3SE5232-0HC05 | 3SE5000-0AK00 | 3SE5000-0AA81 |
| 3SE2 200-1U | 3SE5232-0HK50 | 3SE5232-0HC05 | 3SE5000-0AK00 | 3SE5000-0AA50 |
| 3SE2 200-1V | 3SE5232-0HK80 | 3SE5232-0HC05 | 3SE5000-0AK00 | 3SE5000-0AA80 |
| 3SE2 200-1W | 3SE5232-0HK82 | 3SE5232-0HC05 | 3SE5000-0AK00 | 3SE5000-0AA82 |
| 3SE2 200-1XC | 3SE5232-0HC05 | -- | -- | -- |
| 3SE2 200-1XG | 3SE5232-0HK21 | 3SE5232-0HC05 | 3SE5000-0AK00 | 3SE5000-0AA21 |
| 3SE2 200-1XH | 3SE5232-0HC05 | -- | -- | -- |

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| Old Order No. 3SE2 | New Order No. Complete units | New Order No. – modular system Basic switches | Operating mechanisms | Levers |
|---|---|---|---|---|
| **Standard switches, plastic enclosure** | | | | |
| 3SE2 200-3C | 3SE5232-0MC05 | -- | -- | -- |
| 3SE2 200-3D | -- | 3SE5232-0MC05 | 3SE5000-0AD03 | -- |
| 3SE2 200-3E | -- | 3SE5232-0MC05 | 3SE5000-0AE10 | -- |
| 3SE2 200-3F | -- | 3SE5232-0MC05 | 3SE5000-0AF10 | -- |
| 3SE2 200-3G | -- | 3SE5232-0MC05 | 3SE5000-0AK00 | 3SE5000-0AA21 |
| 3SE2 200-3L | -- | 3SE5232-0MC05 | 3SE5000-0AD10 | -- |
| 3SE2 200-3M | -- | 3SE5232-0MC05 | 3SE5000-0AD10 | -- |
| 3SE2 200-3S | -- | 3SE5232-0MC05 | 3SE5000-0AK00 | 3SE5000-0AA81 |
| 3SE2 200-3U | -- | 3SE5232-0MC05 | 3SE5000-0AK00 | 3SE5000-0AA50 |
| 3SE2 200-3V | -- | 3SE5232-0MC05 | 3SE5000-0AK00 | 3SE5000-0AA80 |
| 3SE2 200-3W | -- | 3SE5232-0MC05 | 3SE5000-0AK00 | 3SE5000-0AA82 |
| 3SE2 200-6C | 3SE5232-0KC05 | -- | -- | -- |
| 3SE2 200-6D | 3SE5232-0KD03 | 3SE5232-0KC05 | 3SE5000-0AD03 | -- |
| 3SE2 200-6E | 3SE5232-0KE10 | 3SE5232-0KC05 | 3SE5000-0AE10 | -- |
| 3SE2 200-6F | 3SE5232-0KF10 | 3SE5232-0KC05 | 3SE5000-0AF10 | -- |
| 3SE2 200-6G | 3SE5232-0KK21 | 3SE5232-0KC05 | 3SE5000-0AK00 | 3SE5000-0AA21 |
| 3SE2 200-6L | 3SE5232-0KD10 | 3SE5232-0KC05 | 3SE5000-0AD10 | -- |
| 3SE2 200-6M | 3SE5232-0KD10 | 3SE5232-0KC05 | 3SE5000-0AD10 | -- |
| 3SE2 200-6S | -- | 3SE5232-0KC05 | 3SE5000-0AK00 | 3SE5000-0AA81 |
| 3SE2 200-6U | -- | 3SE5232-0KC05 | 3SE5000-0AK00 | 3SE5000-0AA50 |
| 3SE2 200-6V | -- | 3SE5232-0KC05 | 3SE5000-0AK00 | 3SE5000-0AA80 |
| 3SE2 200-6W | -- | 3SE5232-0KC05 | 3SE5000-0AK00 | 3SE5000-0AA82 |
| 3SE2 200-7C | 3SE5232-0PC05 | -- | -- | -- |
| 3SE2 200-7D | -- | 3SE5232-0PC05 | 3SE5000-0AD03 | -- |
| 3SE2 200-7E | -- | 3SE5232-0PC05 | 3SE5000-0AE10 | -- |
| 3SE2 200-7F | -- | 3SE5232-0PC05 | 3SE5000-0AF10 | -- |
| 3SE2 200-7G | -- | 3SE5232-0PC05 | 3SE5000-0AK00 | 3SE5000-0AA21 |
| 3SE2 200-7L | -- | 3SE5232-0PC05 | 3SE5000-0AD10 | -- |
| 3SE2 200-7M | -- | 3SE5232-0PC05 | 3SE5000-0AD10 | -- |
| 3SE2 200-7S | -- | 3SE5232-0PC05 | 3SE5000-0AK00 | 3SE5000-0AA81 |
| 3SE2 200-7U | -- | 3SE5232-0PC05 | 3SE5000-0AK00 | 3SE5000-0AA50 |
| 3SE2 200-7V | -- | 3SE5232-0PC05 | 3SE5000-0AK00 | 3SE5000-0AA80 |
| 3SE2 200-7W | -- | 3SE5232-0PC05 | 3SE5000-0AK00 | 3SE5000-0AA82 |
| 3SE2 200-8CV00 | 3SE5232-0LC05 | -- | -- | -- |
| 3SE2 200-8DV00 | 3SE5232-0LD03 | 3SE5232-0LC05 | 3SE5000-0AD03 | -- |
| 3SE2 200-8EV00 | 3SE5232-0LE10 | 3SE5232-0LC05 | 3SE5000-0AE10 | -- |
| 3SE2 200-8EV00-0AA3 | -- | 3SE5232-0LC05 | 3SE5000-0AE11 | -- |
| 3SE2 200-8FV00 | 3SE5232-0LF10 | 3SE5232-0LC05 | 3SE5000-0AF10 | -- |
| 3SE2 200-8GV00 | 3SE5232-0LK21 | 3SE5232-0LC05 | 3SE5000-0AK00 | 3SE5000-0AA21 |
| 3SE2 200-8GV00-0AC4 | -- | 3SE5234-0LC05-1AE0 | 3SE5000-0AK00 | 3SE5000-0AA21 |
| 3SE2 200-8RV00 | -- | 3SE5232-0LC05 | 3SE5000-0AR01 | -- |
| 3SE2 200-8SV00 | -- | 3SE5232-0LC05 | 3SE5000-0AK00 | 3SE5000-0AA81 |
| 3SE2 200-8UV00 | 3SE5232-0LK50 | 3SE5232-0LC05 | 3SE5000-0AK00 | 3SE5000-0AA50 |
| 3SE2 200-8VV00 | -- | 3SE5232-0LC05 | 3SE5000-0AK00 | 3SE5000-0AA80 |
| 3SE2 200-8WV00 | -- | 3SE5232-0LC05 | 3SE5000-0AK00 | 3SE5000-0AA82 |

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## Conversion to 3SE5, 3SF1

| Old Order No. 3SE2 | New Order No. Complete units | New Order No. – modular system Basic switches | Operating mechanisms | Levers |
|---|---|---|---|---|
| **Standard switches, plastic enclosure** | | | | |
| 3SE2 210-0C | 3SE5242-0BC05 | 3SE5242-0BC05 | -- | -- |
| 3SE2 210-0D | 3SE5242-0BD03 | 3SE5242-0BC05 | 3SE5000-0AD03 | -- |
| 3SE2 210-0E | 3SE5242-0BE10 | 3SE5242-0BC05 | 3SE5000-0AE10 | -- |
| 3SE2 210-0F | -- | 3SE5242-0BC05 | 3SE5000-0AF10 | -- |
| 3SE2 210-0G | 3SE5242-0BK21 | 3SE5242-0BC05 | 3SE5000-0AK00 | 3SE5000-0AA21 |
| 3SE2 210-0GV00-0AA3 | -- | 3SE5242-0BC05 | 3SE5000-0AK00 | 3SE5000-0AA22 |
| 3SE2 210-0L | -- | 3SE5242-0BC05 | 3SE5000-0AD10 | -- |
| 3SE2 210-0M | -- | 3SE5242-0BC05 | 3SE5000-0AD10 | -- |
| 3SE2 210-0S | -- | 3SE5242-0BC05 | 3SE5000-0AK00 | 3SE5000-0AA81 |
| 3SE2 210-0U | -- | 3SE5242-0BC05 | 3SE5000-0AK00 | 3SE5000-0AA50 |
| 3SE2 210-0V | -- | 3SE5242-0BC05 | 3SE5000-0AK00 | 3SE5000-0AA80 |
| 3SE2 210-0W | -- | 3SE5242-0BC05 | 3SE5000-0AK00 | 3SE5000-0AA82 |
| 3SE2 210-1C | 3SE5242-0HC05 | 3SE5242-0HC05 | -- | -- |
| 3SE2 210-1CV00-0AH0 | 3SE5242-0HC05 | 3SE5242-0HC05 | -- | -- |
| 3SE2 210-1CV01 | 3SE5242-0FC05 | 3SE5242-0FC05 | -- | -- |
| 3SE2 210-1D | 3SE5242-0HD03 | 3SE5242-0HC05 | 3SE5000-0AD03 | -- |
| 3SE2 210-1E | 3SE5242-0HE10 | 3SE5242-0HC05 | 3SE5000-0AE10 | -- |
| 3SE2 210-1EV00-0AA3 | -- | 3SE5242-0HC05 | 3SE5000-0AE11 | -- |
| 3SE2 210-1F | -- | 3SE5242-0HC05 | 3SE5000-0AF10 | -- |
| 3SE2 210-1G | 3SE5242-0HK21 | 3SE5242-0HC05 | 3SE5000-0AK00 | 3SE5000-0AA21 |
| 3SE2 210-1GV00-0AA3 | -- | 3SE5242-0HC05 | 3SE5000-0AK00 | 3SE5000-0AA22 |
| 3SE2 210-1L | -- | 3SE5242-0HC05 | 3SE5000-0AD10 | -- |
| 3SE2 210-1M | -- | 3SE5242-0HC05 | 3SE5000-0AD10 | -- |
| 3SE2 210-1R | -- | 3SE5242-0HC05 | 3SE5000-0AR01 | -- |
| 3SE2 210-1S | -- | 3SE5242-0HC05 | 3SE5000-0AK00 | 3SE5000-0AA81 |
| 3SE2 210-1U | 3SE5242-0HK50 | 3SE5242-0HC05 | 3SE5000-0AK00 | 3SE5000-0AA50 |
| 3SE2 210-1UV00-0AH3 | -- | 3SE5242-0HC05 | 3SE5000-0AK00 | 3SE5000-0AA50 |
| 3SE2 210-1V | -- | 3SE5242-0HC05 | 3SE5000-0AK00 | 3SE5000-0AA80 |
| 3SE2 210-1W | -- | 3SE5242-0HC05 | 3SE5000-0AK00 | 3SE5000-0AA82 |
| 3SE2 210-1XC | 3SE5242-0HC05 | 3SE5242-0HC05 | -- | -- |
| 3SE2 210-1XH | 3SE5242-0HC05 | 3SE5242-0HC05 | -- | -- |
| 3SE2 210-1XW | 3SE5242-0FC05-8AA0 | -- | -- | -- |
| 3SE2 210-3C | 3SE5242-0MC05 | -- | -- | -- |
| 3SE2 210-3D | -- | 3SE5242-0MC05 | 3SE5000-0AD03 | -- |
| 3SE2 210-3E | -- | 3SE5242-0MC05 | 3SE5000-0AE10 | -- |
| 3SE2 210-3F | -- | 3SE5242-0MC05 | 3SE5000-0AF10 | -- |
| 3SE2 210-3G | -- | 3SE5242-0MC05 | 3SE5000-0AK00 | 3SE5000-0AA21 |
| 3SE2 210-3L | -- | 3SE5242-0MC05 | 3SE5000-0AD10 | -- |
| 3SE2 210-3M | -- | 3SE5242-0MC05 | 3SE5000-0AD10 | -- |
| 3SE2 210-3S | -- | 3SE5242-0MC05 | 3SE5000-0AK00 | 3SE5000-0AA81 |
| 3SE2 210-3U | -- | 3SE5242-0MC05 | 3SE5000-0AK00 | 3SE5000-0AA50 |
| 3SE2 210-3V | -- | 3SE5242-0MC05 | 3SE5000-0AK00 | 3SE5000-0AA80 |
| 3SE2 210-3W | -- | 3SE5242-0MC05 | 3SE5000-0AK00 | 3SE5000-0AA82 |
| 3SE2 210-8CV00 | 3SE5242-0LC05 | 3SE5242-0LC05 | -- | -- |
| 3SE2 210-8DV00 | 3SE5242-0LD03 | 3SE5242-0LC05 | 3SE5000-0AD03 | -- |
| 3SE2 210-8EV00 | 3SE5242-0LE10 | 3SE5242-0LC05 | 3SE5000-0AE10 | -- |
| 3SE2 210-8FV00 | -- | 3SE5242-0LC05 | 3SE5000-0AF10 | -- |
| 3SE2 210-8GV00 | 3SE5242-0LK21 | 3SE5242-0LC05 | 3SE5000-0AK00 | 3SE5000-0AA21 |
| 3SE2 210-8UV00 | -- | 3SE5242-0LC05 | 3SE5000-0AK00 | 3SE5000-0AA50 |

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| Old Order No. 3SE2 | New Order No. Complete units | New Order No. – modular system Basic switches | Operating mechanisms | Levers |
|---|---|---|---|---|
| **Standard switches, metal enclosures** | | | | |
| 3SE2 100-0A | -- | 3SE5122-0BA00 | -- | -- |
| 3SE2 100-0C | 3SE5122-0BC02 | 3SE5122-0BA00 | 3SE5000-0AC02 | -- |
| 3SE2 100-0D | 3SE5122-0BD02 | 3SE5122-0BA00 | 3SE5000-0AD02 | -- |
| 3SE2 100-0DV00-0AK0 | -- | 3SE5122-0BA00-1CA0 | 3SE5000-0AD02 | -- |
| 3SE2 100-0E | 3SE5122-0BE01 | 3SE5122-0BA00 | 3SE5000-0AE01 | -- |
| 3SE2 100-0EV00-0AA3 | -- | 3SE5122-0BA00 | 3SE5000-0AE02 | -- |
| 3SE2 100-0EV00-0AF4 | -- | 3SE5122-1KA00 | 3SE5000-0AE01 | -- |
| 3SE2 100-0EV00-0AK0 | -- | 3SE5122-0BA00-1CA0 | 3SE5000-0AE03 | -- |
| 3SE2 100-0F | 3SE5122-0BF01 | 3SE5122-0BA00 | 3SE5000-0AF01 | -- |
| 3SE2 100-0GW | 3SE5122-0BH01 | 3SE5122-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 100-0GW00-0AA3 | -- | 3SE5122-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 100-0UW | 3SE5122-0BH50 | 3SE5122-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 100-0VW | -- | 3SE5122-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 100-0WW | -- | 3SE5122-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA82 |
| 3SE2 100-1A | -- | 3SE5122-0CA00 | -- | -- |
| 3SE2 100-1C | 3SE5122-0CC02 | 3SE5122-0CA00 | 3SE5000-0AC02 | -- |
| 3SE2 100-1CV00-0AK0 | -- | 3SE5122-0CA00-1CA0 | 3SE5000-0AC02 | -- |
| 3SE2 100-1D | 3SE5122-0CD02 | 3SE5122-0CA00 | 3SE5000-0AD02 | -- |
| 3SE2 100-1DV00-0AA3 | -- | 3SE5122-0CA00 | 3SE5000-0AD02 | -- |
| 3SE2 100-1DV00-0AE0 | 3SE5122-0CD02-1DA0 | 3SE5122-0CA00-1DA0 | 3SE5000-0AD02 | -- |
| 3SE2 100-1DV00-0AH3 | 3SE5122-0CD02 | 3SE5122-0CA00 | 3SE5000-0AD02 | -- |
| 3SE2 100-1DV00-0AK1 | -- | 3SE5122-0CA00-1CA0 | 3SE5000-0AD02 | -- |
| 3SE2 100-1E | 3SE5122-0CE01 | 3SE5122-0CA00 | 3SE5000-0AE01 | -- |
| 3SE2 100-1EV00-0AA3 | 3SE5122-0CE02 | 3SE5122-0CA00 | 3SE5000-0AE02 | -- |
| 3SE2 100-1EV00-0AE0 | 3SE5122-0CE03-1DA0 | -- | -- | -- |
| 3SE2 100-1EV00-0AK0 | -- | 3SE5122-0CA00-1CA0 | 3SE5000-0AE03 | -- |
| 3SE2 100-1EV00-0AK1 | -- | 3SE5122-0CA00-1CA0 | 3SE5000-0AE04 | -- |
| 3SE2 100-1F | 3SE5122-0CF01 | 3SE5122-0CA00 | 3SE5000-0AF01 | -- |
| 3SE2 100-1FV00-0AA3 | -- | 3SE5122-0CA00 | 3SE5000-0AF02 | -- |
| 3SE2 100-1FV00-0AE0 | 3SE5122-0CF03-1DA0 | 3SE5122-0CA00-1DA0 | 3SE5000-0AF03 | -- |
| 3SE2 100-1G | 3SE5122-0CH01 | 3SE5122-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 100-1GV00-0AA3 | 3SE5122-0CH02 | 3SE5122-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 100-1GV00-0AK1 | -- | 3SE5122-0CA00-1CA0 | 3SE5000-0AH00 | 3SE5000-0AA12 |
| 3SE2 100-1GW | 3SE5122-0CH01 | 3SE5122-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 100-1GW00-0AA3 | 3SE5122-0CH02 | 3SE5122-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 100-1GW00-0AE0 | 3SE5122-0CH11-1DA0 | -- | -- | -- |
| 3SE2 100-1GW00-0AK0 | -- | 3SE5122-0CA00-1CA0 | 3SE5000-0AH00 | 3SE5000-0AA11 |
| 3SE2 100-1GW00-0AK1 | -- | 3SE5122-0CA00-1CA0 | 3SE5000-0AH00 | 3SE5000-0AA12 |
| 3SE2 100-1R | 3SE5122-0CR01 | 3SE5122-0CA00 | 3SE5000-0AR01 | -- |
| 3SE2 100-1RV00-0AK0 | -- | 3SE5122-0CA00-1CA0 | 3SE5000-0AR01 | -- |
| 3SE2 100-1T | -- | 3SE5122-0CA00 | 3SE5000-0AT10 | 3SE5000-0AT01 |
| 3SE2 100-1U | 3SE5122-0CH50 | 3SE5122-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 100-1UW | 3SE5122-0CH50 | 3SE5122-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 100-1UW00-0AA3 | -- | 3SE5122-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA51 |
| 3SE2 100-1UW00-0AA5 | -- | 3SE5122-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA55 |
| 3SE2 100-1V | 3SE5122-0CH80 | 3SE5122-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 100-1VW | 3SE5122-0CH80 | 3SE5122-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 100-1W | -- | 3SE5122-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA82 |
| 3SE2 100-1WW | -- | 3SE5122-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA82 |
| 3SE2 100-1WW00-0AA0 | -- | 3SE5122-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA82 |
| 3SE2 100-3A | -- | 3SE5122-0MA00 | -- | -- |
| 3SE2 100-3C | -- | 3SE5122-0MA00 | 3SE5000-0AC02 | -- |
| 3SE2 100-3D | -- | 3SE5122-0MA00 | 3SE5000-0AD02 | -- |
| 3SE2 100-3E | -- | 3SE5122-0MA00 | 3SE5000-0AE01 | -- |
| 3SE2 100-3F | -- | 3SE5122-0MA00 | 3SE5000-0AF01 | -- |

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## Conversion to 3SE5, 3SF1

| Old Order No. 3SE2 | New Order No. Complete units | New Order No. – modular system Basic switches | Operating mechanisms | Levers |
|---|---|---|---|---|
| **Standard switches, metal enclosures** | | | | |
| 3SE2 100-3GW | -- | 3SE5122-0MA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 100-3UW | -- | 3SE5122-0MA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 100-3VW | -- | 3SE5122-0MA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 100-3WW | -- | 3SE5122-0MA00 | 3SE5000-0AH00 | 3SE5000-0AA82 |
| 3SE2 100-6A | -- | 3SE5122-0KA00 | -- | -- |
| 3SE2 100-6C | 3SE5122-0KC02 | 3SE5122-0KA00 | 3SE5000-0AC02 | -- |
| 3SE2 100-6CV00-0AK0 | -- | 3SE5122-0KA00-1CA0 | 3SE5000-0AC02 | -- |
| 3SE2 100-6D | 3SE5122-0KD02 | 3SE5122-0KA00 | 3SE5000-0AD02 | -- |
| 3SE2 100-6E | 3SE5122-0KE01 | 3SE5122-0KA00 | 3SE5000-0AE01 | -- |
| 3SE2 100-6F | -- | 3SE5122-0KA00 | 3SE5000-0AF01 | -- |
| 3SE2 100-6GW | 3SE5122-0KH01 | 3SE5122-0KA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 100-6UW | -- | 3SE5122-0KA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 100-6VW | -- | 3SE5122-0KA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 100-7A | -- | 3SE5122-0PA00 | -- | -- |
| 3SE2 100-7C | -- | 3SE5122-0PA00 | 3SE5000-0AC02 | -- |
| 3SE2 100-7D | -- | 3SE5122-0PA00 | 3SE5000-0AD02 | -- |
| 3SE2 100-7E | -- | 3SE5122-0PA00 | 3SE5000-0AE01 | -- |
| 3SE2 100-7F | -- | 3SE5122-0PA00 | 3SE5000-0AF01 | -- |
| 3SE2 100-7GW | -- | 3SE5122-0PA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 100-7UW | -- | 3SE5122-0PA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 100-7VW | -- | 3SE5122-0PA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 100-7WW | -- | 3SE5122-0PA00 | 3SE5000-0AH00 | 3SE5000-0AA82 |
| 3SE2 100-8CV00 | 3SE5122-0LC02 | 3SE5122-0LA00 | 3SE5000-0AC02 | -- |
| 3SE2 100-8DV00 | 3SE5122-0LD02 | 3SE5122-0LA00 | 3SE5000-0AD02 | -- |
| 3SE2 100-8EV00 | 3SE5122-0LE01 | 3SE5122-0LA00 | 3SE5000-0AE01 | -- |
| 3SE2 100-8FV00 | -- | 3SE5122-0LA00 | 3SE5000-0AF01 | -- |
| 3SE2 100-8GW00 | 3SE5122-0LH01 | 3SE5122-0LA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 100-8GW00-0AA3 | -- | 3SE5122-0LA00 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 100-8RV00 | -- | 3SE5122-0LA00 | 3SE5000-0AR01 | -- |
| 3SE2 100-8UW00 | -- | 3SE5122-0LA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 100-8VW00 | -- | 3SE5122-0LA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 100-8WW00 | -- | 3SE5122-0LA00 | 3SE5000-0AH00 | 3SE5000-0AA82 |
| 3SE2 120-0A | -- | 3SE5112-0BA00 | -- | -- |
| 3SE2 120-0AV00-0AF1 | -- | 3SE5112-1KA00 | -- | -- |
| 3SE2 120-0C | 3SE5112-0BC02 | 3SE5112-0BA00 | 3SE5000-0AC02 | -- |
| 3SE2 120-0D | 3SE5112-0BD02 | 3SE5112-0BA00 | 3SE5000-0AD02 | -- |
| 3SE2 120-0DV00-0AA3 | 3SE5112-0BD02 | 3SE5112-0BA00 | 3SE5000-0AD02 | -- |
| 3SE2 120-0DV00-0AD1 | -- | 3SE5115-0KA00-1AD1 | 3SE5000-0AD02 | -- |
| 3SE2 120-0DV00-0AF7 | -- | 3SE5115-1BA00-1AF2 | 3SE5000-0AD02 | -- |
| 3SE2 120-0DV00-0AK0 | -- | 3SE5112-0BA00-1CA0 | 3SE5000-0AD02 | -- |
| 3SE2 120-0E | 3SE5112-0BE01 | 3SE5112-0BA00 | 3SE5000-0AE01 | -- |
| 3SE2 120-0EV00-0AA3 | -- | 3SE5112-0BA00 | 3SE5000-0AE02 | -- |
| 3SE2 120-0EV00-0AF1 | -- | 3SE5112-1KA00 | 3SE5000-0AE01 | -- |
| 3SE2 120-0EV00-0AK0 | -- | 3SE5112-0BA00-1CA0 | 3SE5000-0AE03 | -- |
| 3SE2 120-0F | 3SE5112-0BF01 | 3SE5112-0BA00 | 3SE5000-0AF01 | -- |
| 3SE2 120-0G | 3SE5112-0BH01 | 3SE5112-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-0GV00-0AD1 | -- | 3SE5115-0KA00-1AD1 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-0GW | 3SE5112-0BH01 | 3SE5112-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-0GW00-0AA3 | 3SE5112-0BH02 | 3SE5112-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 120-0GW00-0AA4 | -- | 3SE5112-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA04 |
| 3SE2 120-0GW00-0AA5 | -- | 3SE5112-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA05 |
| 3SE2 120-0GW00-0AA7 | -- | 3SE5112-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA07 |
| 3SE2 120-0GW00-0AF1 | -- | 3SE5112-1KA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-0GW00-0AF2 | -- | 3SE5115-1BA00-1AF2 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-0GW00-0AG2 | -- | 3SE5112-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 120-0GW00-0AK0 | -- | 3SE5112-0BA00-1CA0 | 3SE5000-0AH00 | 3SE5000-0AA11 |
| 3SE2 120-0J | 3SE5112-0BH01 | 3SE5112-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-0U | 3SE5112-0BH50 | 3SE5112-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 120-0UW | 3SE5112-0BH50 | 3SE5112-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 120-0UW00-0AA3 | -- | 3SE5112-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA51 |
| 3SE2 120-0VW | -- | 3SE5112-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 120-0WW | -- | 3SE5112-0BA00 | 3SE5000-0AH00 | 3SE5000-0AA82 |
| 3SE2 120-0WW00-0AK0 | -- | 3SE5112-0BA00-1CA0 | 3SE5000-0AH00 | 3SE5000-0AA82 |

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| Old Order No. 3SE2 | New Order No. Complete units | New Order No. – modular system Basic switches | Operating mechanisms | Levers |
|---|---|---|---|---|
| **Standard switches, metal enclosures** | | | | |
| 3SE2 120-1A | -- | 3SE5112-0CA00 | -- | -- |
| 3SE2 120-1AV00-0AC5 | -- | 3SE5114-0CA00-1AC5 | -- | -- |
| 3SE2 120-1AV00-0AD4 | -- | 3SE5115-1CA00-1AF2 | -- | -- |
| 3SE2 120-1AV00-0AF0 | -- | 3SE5112-1LA00 | -- | -- |
| 3SE2 120-1AV00-0AF1 | -- | 3SE5112-1LA00 | -- | -- |
| 3SE2 120-1AV00-0AF4 | -- | 3SE5112-3LA00 | -- | -- |
| 3SE2 120-1C | 3SE5112-0CC02 | 3SE5112-0CA00 | 3SE5000-0AC02 | -- |
| 3SE2 120-1CV00-0AC5 | -- | 3SE5114-0CA00-1AC5 | 3SE5000-0AC02 | -- |
| 3SE2 120-1CV00-0AD1 | -- | 3SE5115-0LA00-1AD1 | 3SE5000-0AC02 | -- |
| 3SE2 120-1CV00-0AE0 | 3SE5112-0CC02-1DA0 | 3SE5115-0CA00-1DA0 | 3SE5000-0AC02 | -- |
| 3SE2 120-1CV00-0AF4 | -- | 3SE5112-3LA00 | 3SE5000-0AC02 | -- |
| 3SE2 120-1CV00-0AK0 | -- | 3SE5112-0CA00-1CA0 | 3SE5000-0AC02 | -- |
| 3SE2 120-1D | 3SE5112-0CD02 | 3SE5112-0CA00 | 3SE5000-0AD02 | -- |
| 3SE2 120-1DV00-0AA3 | -- | 3SE5112-0CA00 | 3SE5000-0AD02 | -- |
| 3SE2 120-1DV00-0AC4 | -- | 3SE5114-0CA00-1AC5 | 3SE5000-0AD02 | -- |
| 3SE2 120-1DV00-0AC5 | -- | 3SE5114-0CA00-1AC5 | 3SE5000-0AD02 | -- |
| 3SE2 120-1DV00-0AD0 | -- | 3SE5115-0CA00-1AD0 | 3SE5000-0AD02 | -- |
| 3SE2 120-1DV00-0AD1 | -- | 3SE5115-0LA00-1AD1 | 3SE5000-0AD02 | -- |
| 3SE2 120-1DV00-0AE0 | 3SE5112-0CD02-1DA0 | -- | -- | -- |
| 3SE2 120-1DV00-0AF0 | -- | 3SE5112-1LA00 | 3SE5000-0AD02 | -- |
| 3SE2 120-1DV00-0AF1 | -- | 3SE5112-1LA00 | 3SE5000-0AD02 | -- |
| 3SE2 120-1DV00-0AF2 | -- | 3SE5115-1CA00-1AF2 | 3SE5000-0AD02 | -- |
| 3SE2 120-1DV00-0AF4 | -- | 3SE5112-3LA00 | 3SE5000-0AD02 | -- |
| 3SE2 120-1DV00-0AF6 | -- | 3SE5112-1LA00 | 3SE5000-0AD02 | -- |
| 3SE2 120-1DV00-0AF7 | -- | 3SE5115-1CA00-1AF2 | 3SE5000-0AD02 | -- |
| 3SE2 120-1DV00-0AJ5 | -- | 3SE5114-1CA00-1AF3 | 3SE5000-0AD02 | -- |
| 3SE2 120-1DV00-0AK0 | -- | 3SE5112-0CA00-1CA0 | 3SE5000-0AD02 | -- |
| 3SE2 120-1E | 3SE5112-0CE01 | 3SE5112-0CA00 | 3SE5000-0AE01 | -- |
| 3SE2 120-1EV00-0AA3 | -- | 3SE5112-0CA00 | 3SE5000-0AE02 | -- |
| 3SE2 120-1EV00-0AC4 | -- | 3SE5114-0CA00-1AC5 | 3SE5000-0AE01 | -- |
| 3SE2 120-1EV00-0AD0 | -- | 3SE5115-0CA00-1AD0 | 3SE5000-0AE01 | -- |
| 3SE2 120-1EV00-0AD1 | -- | 3SE5115-0LA00-1AD1 | 3SE5000-0AE01 | -- |
| 3SE2 120-1EV00-0AE0 | 3SE5112-0CE03-1DA0 | -- | -- | -- |
| 3SE2 120-1EV00-0AF0 | -- | 3SE5112-1LA00 | 3SE5000-0AE01 | -- |
| 3SE2 120-1EV00-0AK0 | -- | 3SE5112-0CA00-1CA0 | 3SE5000-0AE03 | -- |
| 3SE2 120-1F | 3SE5112-0CF01 | 3SE5112-0CA00 | 3SE5000-0AF01 | -- |
| 3SE2 120-1FV00-0AA3 | -- | 3SE5112-0CA00 | 3SE5000-0AF02 | -- |
| 3SE2 120-1FV00-0AC4 | -- | 3SE5114-0CA00-1AC5 | 3SE5000-0AF01 | -- |
| 3SE2 120-1FV00-0AC5 | -- | 3SE5114-0CA00-1AC5 | 3SE5000-0AF01 | -- |
| 3SE2 120-1FV00-0AE0 | 3SE5112-0CF03-1DA0 | -- | -- | -- |
| 3SE2 120-1FV00-0AK0 | -- | 3SE5112-0CA00-1CA0 | 3SE5000-0AF03 | -- |
| 3SE2 120-1G | 3SE5112-0CH01 | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-1GV00-0AA3 | 3SE5112-0CH02 | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 120-1GV00-0AD1 | -- | 3SE5115-0LA00-1AD1 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-1GV00-0AD4 | -- | 3SE5115-1CA00-1AF2 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-1GV00-0AF0 | -- | 3SE5112-1LA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-1GV00-0AF4 | -- | 3SE5112-3LA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-1GV00-0AF5 | -- | 3SE5112-1LA00 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 120-1GV00-0AG0 | -- | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA15 |
| 3SE2 120-1GV00-0AJ5 | -- | 3SE5114-1CA00-1AF3 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 120-1GV00-0AK0 | -- | 3SE5112-0CA00-1CA0 | 3SE5000-0AH00 | 3SE5000-0AA11 |
| 3SE2 120-1GV00-0AK3 | -- | 3SE5112-0CA00-1CA0 | 3SE5000-0AH00 | 3SE5000-0AA11 |
| 3SE2 120-1GW | 3SE5112-0CH01 | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-1GW00-0AA2 | -- | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA04 |
| 3SE2 120-1GW00-0AA3 | 3SE5112-0CH02 | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 120-1GW00-0AA5 | -- | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA05 |
| 3SE2 120-1GW00-0AA7 | -- | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA07 |
| 3SE2 120-1GW00-0AC4 | 3SE5114-0CH01-1AC5 | 3SE5114-0CA00-1AC5 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-1GW00-0AC5 | 3SE5114-0CH01-1AC5 | 3SE5114-0CA00-1AC5 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-1GW00-0AD0 | -- | 3SE5115-0CA00-1AD0 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-1GW00-0AD1 | -- | 3SE5115-0LA00-1AD1 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-1GW00-0AD3 | -- | 3SE5115-0LA00-1AD1 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 120-1GW00-0AE0 | 3SE5112-0CH11-1DA0 | -- | -- | -- |
| 3SE2 120-1GW00-0AF0 | -- | 3SE5112-1LA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-1GW00-0AF2 | -- | 3SE5115-1CA00-1AF2 | 3SE5000-0AH00 | 3SE5000-0AA01 |

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## Conversion to 3SE5, 3SF1

| Old Order No. 3SE2 | New Order No. Complete units | New Order No. – modular system Basic switches | Operating mechanisms | Levers |
|---|---|---|---|---|
| **Standard switches, metal enclosures** | | | | |
| 3SE2 120-1GW00-0AF4 | -- | 3SE5112-3LA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-1GW00-0AF5 | -- | 3SE5112-1LA00 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 120-1GW00-0AF7 | -- | 3SE5115-1CA00-1AF2 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 120-1GW00-0AG1 | 3SE5 112-0CH01 | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-1GW00-0AG2 | 3SE5 112-0CH01 | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 120-1GW00-0AG8 | -- | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA03 |
| 3SE2 120-1GW00-0AJ1 | -- | 3SE5115-0LA00-1AD1 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 120-1GW00-0AJ4 | -- | 3SE5114-0CA00-1AC5 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 120-1GW00-0AK0 | -- | 3SE5112-0CA00-1CA0 | 3SE5000-0AH00 | 3SE5000-0AA11 |
| 3SE2 120-1GW00-0AK1 | -- | 3SE5112-0CA00-1CA0 | 3SE5000-0AH00 | 3SE5000-0AA12 |
| 3SE2 120-1J | 3SE5112-0CH01 | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-1JV00-0AF5 | -- | 3SE5112-1LA00 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 120-1R | 3SE5112-0CR01 | 3SE5112-0CA00 | 3SE5000-0AR01 | -- |
| 3SE2 120-1RV00-0AD0 | -- | 3SE5115-0CA00-1AD0 | 3SE5000-0AR01 | -- |
| 3SE2 120-1RV00-0AE0 | 3SE5112-0CR01-1DA0 | 3SE5112-0CA00-1DA0 | 3SE5000-0AR01 | -- |
| 3SE2 120-1RV00-0AK0 | -- | 3SE5112-0CA00-1CA0 | 3SE5000-0AR01 | -- |
| 3SE2 120-1RV00-0AL0 | -- | 3SE5112-0CA00 | 3SE5000-0AR02 | -- |
| 3SE2 120-1RV00-0AL1 | -- | 3SE5112-0CA00 | 3SE5000-0AR03 | -- |
| 3SE2 120-1RV00-0AL2 | -- | 3SE5112-0CA00 | 3SE5000-0AR04 | -- |
| 3SE2 120-1T | 3SE5112-0CT11 | 3SE5112-0CA00 | 3SE5000-0AT10 | 3SE5000-0AT01 |
| 3SE2 120-1TV00-0AA3 | -- | 3SE5112-0CA00 | 3SE5000-0AT10 | 3SE5000-0AT02 |
| 3SE2 120-1TV00-0AC4 | -- | 3SE5114-0CA00-1AC5 | 3SE5000-0AT10 | 3SE5000-0AT01 |
| 3SE2 120-1TV00-0AE0 | 3SE5112-0CT13-1DA0 | -- | -- | -- |
| 3SE2 120-1TV00-0AK0 | -- | 3SE5112-0CA00-1CA0 | 3SE5000-0AT10 | 3SE5000-0AT03 |
| 3SE2 120-1U | 3SE5112-0CH50 | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 120-1UV00-0AH4 | -- | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 120-1UW | 3SE5112-0CH50 | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 120-1UW00-0AA3 | -- | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA51 |
| 3SE2 120-1UW00-0AA5 | -- | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA55 |
| 3SE2 120-1UW00-0AA7 | -- | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA57 |
| 3SE2 120-1UW00-0AC4 | -- | 3SE5114-0CA00-1AC5 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 120-1UW00-0AD1 | -- | 3SE5115-0LA00-1AD1 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 120-1UW00-0AF0 | -- | 3SE5112-1LA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 120-1UW00-0AF7 | -- | 3SE5115-1CA00-1AF2 | 3SE5000-0AH00 | 3SE5000-0AA51 |
| 3SE2 120-1UW00-0AG1 | -- | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 120-1UW00-0AK0 | -- | 3SE5112-0CA00-1CA0 | 3SE5000-0AH00 | 3SE5000-0AA52 |
| 3SE2 120-1UW00-0AK4 | -- | 3SE5112-0CA00-1CA0 | 3SE5000-0AH00 | 3SE5000-0AA58 |
| 3SE2 120-1V | 3SE5112-0CH80 | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 120-1VV00-0AF0 | -- | 3SE5112-1LA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 120-1VW | 3SE5112-0CH80 | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 120-1VW00-0AC4 | -- | 3SE5114-0CA00-1AC5 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 120-1VW00-0AD1 | -- | 3SE5115-0LA00-1AD1 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 120-1VW00-0AG1 | -- | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 120-1VW00-0AG6 | -- | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 120-1W | 3SE5112-0CH82 | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA82 |
| 3SE2 120-1WW | 3SE5112-0CH82 | 3SE5112-0CA00 | 3SE5000-0AH00 | 3SE5000-0AA82 |
| 3SE2 120-1WW00-0AD0 | -- | 3SE5115-0CA00-1AD0 | 3SE5000-0AH00 | 3SE5000-0AA82 |
| 3SE2 120-1WW00-0AE0 | 3SE5112-0CH82-1DA0 | -- | -- | -- |
| 3SE2 120-1WW00-0AK0 | -- | 3SE5112-0CA00-1CA0 | 3SE5000-0AH00 | 3SE5000-0AA82 |
| 3SE2 120-3A | -- | 3SE5112-0MA00 | -- | -- |
| 3SE2 120-3C | -- | 3SE5112-0MA00 | 3SE5000-0AC02 | -- |
| 3SE2 120-3D | -- | 3SE5112-0MA00 | 3SE5000-0AD02 | -- |
| 3SE2 120-3E | -- | 3SE5112-0MA00 | 3SE5000-0AE01 | -- |
| 3SE2 120-3F | -- | 3SE5112-0MA00 | 3SE5000-0AF01 | -- |
| 3SE2 120-3GW | -- | 3SE5112-0MA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-3UW | -- | 3SE5112-0MA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 120-3VW | -- | 3SE5112-0MA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 120-3WW | -- | 3SE5112-0MA00 | 3SE5000-0AH00 | 3SE5000-0AA82 |
| 3SE2 120-6A | -- | 3SE5112-0KA00 | -- | -- |
| 3SE2 120-6C | 3SE5112-0KC02 | 3SE5112-0KA00 | 3SE5000-0AC02 | -- |
| 3SE2 120-6D | 3SE5112-0KD02 | 3SE5112-0KA00 | 3SE5000-0AD02 | -- |
| 3SE2 120-6DV00-0AA3 | -- | 3SE5112-0KA00 | 3SE5000-0AD02 | -- |
| 3SE2 120-6E | 3SE5112-0KE01 | 3SE5112-0KA00 | 3SE5000-0AE01 | -- |
| 3SE2 120-6F | -- | 3SE5112-0KA00 | 3SE5000-0AF01 | -- |

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| Old Order No. 3SE2 | New Order No. Complete units | New Order No. – modular system Basic switches | Operating mechanisms | Levers |
|---|---|---|---|---|
| **Standard switches, metal enclosures** | | | | |
| 3SE2 120-6GW | 3SE5112-0KH01 | 3SE5112-0KA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-6GW00-0AA3 | -- | 3SE5112-0KA00 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 120-6GW00-0AG1 | -- | 3SE5112-0KA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-6GW00-0AG2 | -- | 3SE5112-0KA00 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 120-6GW00-0AG8 | -- | 3SE5112-0KA00 | 3SE5000-0AH00 | 3SE5000-0AA03 |
| 3SE2 120-6GW00-0AK1 | -- | 3SE5112-0KA00-1CA0 | 3SE5000-0AH00 | 3SE5000-0AA12 |
| 3SE2 120-6UW | -- | 3SE5112-0KA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 120-6VW | -- | 3SE5112-0KA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 120-6WW | -- | 3SE5112-0KA00 | 3SE5000-0AH00 | 3SE5000-0AA82 |
| 3SE2 120-7A | -- | 3SE5112-0PA00 | -- | -- |
| 3SE2 120-7C | -- | 3SE5112-0PA00 | 3SE5000-0AC02 | -- |
| 3SE2 120-7D | -- | 3SE5112-0PA00 | 3SE5000-0AD02 | -- |
| 3SE2 120-7E | -- | 3SE5112-0PA00 | 3SE5000-0AE01 | -- |
| 3SE2 120-7F | -- | 3SE5112-0PA00 | 3SE5000-0AF01 | -- |
| 3SE2 120-7GW | -- | 3SE5112-0PA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-7UW | -- | 3SE5112-0PA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 120-7VW | -- | 3SE5112-0PA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 120-7WW | -- | 3SE5112-0PA00 | 3SE5000-0AH00 | 3SE5000-0AA82 |
| 3SE2 120-8AV00 | -- | 3SE5112-0LA00 | -- | -- |
| 3SE2 120-8CV00 | 3SE5112-0LC02 | 3SE5112-0LA00 | 3SE5000-0AC02 | -- |
| 3SE2 120-8CV00-0AC5 | -- | 3SE5114-0LA00-1AE1 | 3SE5000-0AC02 | -- |
| 3SE2 120-8DV00 | 3SE5112-0LD02 | 3SE5112-0LA00 | 3SE5000-0AD02 | -- |
| 3SE2 120-8DV00-0AC2 | -- | 3SE5115-1LA00-1AD2 | 3SE5000-0AD02 | -- |
| 3SE2 120-8DV00-0AC4 | -- | 3SE5114-0LA00-1AE1 | 3SE5000-0AD02 | -- |
| 3SE2 120-8DV00-0AC5 | -- | 3SE5114-0LA00-1AE1 | 3SE5000-0AD02 | -- |
| 3SE2 120-8DV00-0AJ6 | -- | 3SE5114-0LA00-1AE1 | 3SE5000-0AD02 | -- |
| 3SE2 120-8EV00 | 3SE5112-0LE01 | 3SE5112-0LA00 | 3SE5000-0AE01 | -- |
| 3SE2 120-8EV00-0AC5 | -- | 3SE5114-0LA00-1AE1 | 3SE5000-0AE01 | -- |
| 3SE2 120-8FV00 | 3SE5112-0LF01 | 3SE5112-0LA00 | 3SE5000-0AF01 | -- |
| 3SE2 120-8GW00 | 3SE5112-0LH01 | 3SE5112-0LA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-8GW00-0AA3 | -- | 3SE5112-0LA00 | 3SE5000-0AH00 | 3SE5000-0AA02 |
| 3SE2 120-8GW00-0AC4 | -- | 3SE5114-0LA00-1AE1 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-8GW00-0AC5 | -- | 3SE5114-0LA00-1AE1 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 120-8GW00-0AK1 | -- | 3SE5112-0LA00-1CA0 | 3SE5000-0AH00 | 3SE5000-0AA12 |
| 3SE2 120-8RV00 | -- | 3SE5112-0LA00 | 3SE5000-0AR01 | -- |
| 3SE2 120-8UW00 | 3SE5112-0LH50 | 3SE5112-0LA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 120-8VW00 | -- | 3SE5112-0LA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 120-8WW00 | -- | 3SE5112-0LA00 | 3SE5000-0AH00 | 3SE5000-0AA82 |
| 3SE2 303-0A | -- | 3SE5122-0KA00 | -- | -- |
| 3SE2 303-0C | 3SE5122-0KC02 | 3SE5122-0KA00 | 3SE5000-0AC02 | -- |
| 3SE2 303-0D | -- | 3SE5122-0KA00 | 3SE5000-0AD02 | -- |
| 3SE2 303-0DV00-0AA3 | -- | 3SE5122-0KA00 | 3SE5000-0AD02 | -- |
| 3SE2 303-0E | -- | 3SE5122-0KA00 | 3SE5000-0AE01 | -- |
| 3SE2 303-0F | -- | 3SE5122-0KA00 | 3SE5000-0AF01 | -- |
| 3SE2 303-0GW | -- | 3SE5122-0KA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 303-0UW | -- | 3SE5122-0KA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 303-0VW | -- | 3SE5122-0KA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 303-0WW | -- | 3SE5122-0KA00 | 3SE5000-0AH00 | 3SE5000-0AA82 |
| 3SE2 303-1A | -- | 3SE5122-0PA00 | -- | -- |
| 3SE2 303-1C | -- | 3SE5122-0PA00 | 3SE5000-0AC02 | -- |
| 3SE2 303-1D | -- | 3SE5122-0PA00 | 3SE5000-0AD02 | -- |
| 3SE2 303-1DV00-0AA3 | -- | 3SE5122-0PA00 | 3SE5000-0AD02 | -- |
| 3SE2 303-1E | -- | 3SE5122-0PA00 | 3SE5000-0AE01 | -- |
| 3SE2 303-1F | -- | 3SE5122-0PA00 | 3SE5000-0AF01 | -- |
| 3SE2 303-1GW | -- | 3SE5122-0PA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 303-1UW | -- | 3SE5122-0PA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 303-1VW | -- | 3SE5122-0PA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 303-1WW | -- | 3SE5122-0PA00 | 3SE5000-0AH00 | 3SE5000-0AA82 |

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## Conversion to 3SE5, 3SF1

| Old Order No. 3SE2 | New Order No. Complete units | New Order No. – modular system Basic switches | Operating mechanisms | Levers |
|---|---|---|---|---|
| **Standard switches, metal enclosures** | | | | |
| 3SE2 303-2A | -- | 3SE5122-0MA00 | -- | -- |
| 3SE2 303-2C | -- | 3SE5122-0MA00 | 3SE5000-0AC02 | -- |
| 3SE2 303-2D | -- | 3SE5122-0MA00 | 3SE5000-0AD02 | -- |
| 3SE2 303-2DV00-0AA3 | -- | 3SE5122-0MA00 | 3SE5000-0AD02 | -- |
| 3SE2 303-2E | -- | 3SE5122-0MA00 | 3SE5000-0AE01 | -- |
| 3SE2 303-2F | -- | 3SE5122-0MA00 | 3SE5000-0AF01 | -- |
| 3SE2 303-2GW | -- | 3SE5122-0MA00 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SE2 303-2UW | -- | 3SE5122-0MA00 | 3SE5000-0AH00 | 3SE5000-0AA50 |
| 3SE2 303-2VW | -- | 3SE5122-0MA00 | 3SE5000-0AH00 | 3SE5000-0AA80 |
| 3SE2 303-2WW | -- | 3SE5122-0MA00 | 3SE5000-0AH00 | 3SE5000-0AA82 |

### *3SE2, 3SE3 ---> 3SE5 safety switches*

Safety position switches with separate actuator from the 3SE2 and 3SE3 series can be converted to the new switches of the 3SE5 series with the help of this table.

| Old Order No. 3SE2, 3SE3 | New Order No. Complete units |
|---|---|
| **With separate actuator** | |
| 3SE2 120-0XX<br>3SE2 120-0XX00-0AF0 | 3SE5112-0QV10<br>3SE5112-1QV10 |
| 3SE2 120-4XX | 3SE5112-0QV10 |
| 3SE2 120-6XX<br>3SE2 120-6XX00-0AC4 | 3SE5112-0QV10<br>3SE5114-0QV10-1AE1 |
| 3SE2 200-0XX03<br>3SE2 200-0XX04 | 3SE5232-0RV40<br>3SE5232-0RV40 |
| 3SE3 200-0XX13 | 3SE5232-0RV40 |
| 3SE2 200-6XX03<br>3SE2 200-6XX04 | 3SE5232-0QV40<br>3SE5232-0QV40 |
| 3SE3 200-6XX13 | 3SE5232-0QV40 |

The 3SE2 243 and 3SE2 257 switches with separate actuator and the 3SE2 83 and 3SE2 84 with solenoid interlocking are still available without any restriction.

| Old Order No. 3SE3 | New Order No. Complete units |
|---|---|
| **With solenoid interlocking** | |
| 3SE3 750-3XX00<br>3SE3 750-6XX00 | 3SE5 322-0SB21<br>3SE5 322-0SB21 |
| 3SE3 751-3XX00<br>3SE3 751-6XX00 | 3SE5 322-0SB23<br>3SE5 322-0SB23 |
| 3SE3 752-3XX00<br>3SE3 752-6XX00 | 3SE5 322-0SB22<br>3SE5 322-0SB22 |
| 3SE3 760-3XX00<br>3SE3 760-3XX01<br>3SE3 760-6XX00<br>3SE3 760-6XX01 | 3SE5 322-0SD21<br>3SE5 322-0SE21<br>3SE5 322-0SD21<br>3SE5 322-0SE21 |
| 3SE3 761-3XX00<br>3SE3 761-3XX01<br>3SE3 761-6XX00 | 3SE5 322-0SD23<br>3SE5 322-0SE23<br>3SE5 322-0SD23 |
| 3SE3 762-3XX00<br>3SE3 762-3XX01<br>3SE3 762-6XX00 | 3SE5 322-0SD22<br>3SE5 322-0SE22<br>3SE5 322-0SD22 |
| 3SE3 850-3XX00<br>3SE3 850-6XX00 | 3SE5 312-0SB11<br>3SE5 312-0SB11 |
| 3SE3 851-3XX00<br>3SE3 851-6XX00 | 3SE5 312-0SB13<br>3SE5 312-0SB13 |
| 3SE3 852-3XX00<br>3SE3 852-6XX00 | 3SE5 312-0SB12<br>3SE5 312-0SB12 |
| 3SE3 860-3XX00<br>3SE3 860-3XX01<br>3SE3 860-6XX00<br>3SE3 860-6XX01 | 3SE5 312-0SD11<br>3SE5 312-0SE11<br>3SE5 312-0SD11<br>3SE5 312-0SE11 |
| 3SE3 861-3XX00<br>3SE3 861-3XX01<br>3SE3 861-6XX00<br>3SE3 861-6XX01 | 3SE5 312-0SD13<br>3SE5 312-0SE13<br>3SE5 312-0SD13<br>3SE5 312-0SE13 |
| 3SE3 862-3XX00<br>3SE3 862-3XX01<br>3SE3 862-6XX00<br>3SE3 862-6XX01 | 3SE5 312-0SD12<br>3SE5 312-0SE12<br>3SE5 312-0SD12<br>3SE5 312-0SE12 |

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### *AS-Interface 3SF3 --> 3SF1*

ASIsafe position switches from the 3SF3 series can be converted to the new switches of the 3SF1 series with the help of this table.

| Old Order No. 3SF3 | New Order No. Complete units | New Order No. – modular system Basic switches | Operating mechanisms | Levers |
|---|---|---|---|---|
| **Standard switches** | | | | |
| 3SF3 100-0CV00-0BA2 | -- | 3SF1124-1KA00-1BA2 | 3SE5000-0AC02 | -- |
| 3SF3 100-0DV00-0BA2 | -- | 3SF1124-1KA00-1BA2 | 3SE5000-0AD02 | -- |
| 3SF3 100-0EV00-0BA2 | -- | 3SF1124-1KA00-1BA2 | 3SE5000-0AE01 | -- |
| 3SF3 100-0FV00-0BA2 | -- | 3SF1124-1KA00-1BA2 | 3SE5000-0AF01 | -- |
| 3SF3 100-0GW00-0BA2 | -- | 3SF1124-1KA00-1BA2 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SF3 100-1CV00-0BA2 | -- | 3SF1124-1LA00-1BA2 | 3SE5000-0AC02 | -- |
| 3SF3 100-1DV00-0BA2 | -- | 3SF1124-1LA00-1BA2 | 3SE5000-0AD02 | -- |
| 3SF3 100-1EV00-0BA2 | -- | 3SF1124-1LA00-1BA2 | 3SE5000-0AE01 | -- |
| 3SF3 100-1FV00-0BA2 | -- | 3SF1124-1LA00-1BA2 | 3SE5000-0AF01 | -- |
| 3SF3 100-1GW00-0BA2 | -- | 3SF1124-1LA00-1BA2 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SF3 120-6CV00-0BA1 | -- | 3SF1114-1KA00-1BA1 | 3SE5000-0AC02 | -- |
| 3SF3 120-6DV00-0BA1 | -- | 3SF1114-1KA00-1BA1 | 3SE5000-0AD02 | -- |
| 3SF3 120-6EV00-0BA1 | -- | 3SF1114-1KA00-1BA1 | 3SE5000-0AE01 | -- |
| 3SF3 120-6FV00-0BA1 | -- | 3SF1114-1KA00-1BA1 | 3SE5000-0AF01 | -- |
| 3SF3 120-6GW00-0BA1 | -- | 3SF1114-1KA00-1BA1 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SF3 120-8CV00-0BA1 | -- | 3SF1114-1LA00-1BA1 | 3SE5000-0AC02 | -- |
| 3SF3 120-8DV00-0BA1 | -- | 3SF1114-1LA00-1BA1 | 3SE5000-0AD02 | -- |
| 3SF3 120-8EV00-0BA1 | -- | 3SF1114-1LA00-1BA1 | 3SE5000-0AE01 | -- |
| 3SF3 120-8FV00-0BA1 | -- | 3SF1114-1LA00-1BA1 | 3SE5000-0AF01 | -- |
| 3SF3 120-8GW00-0BA1 | -- | 3SF1114-1LA00-1BA1 | 3SE5000-0AH00 | 3SE5000-0AA01 |
| 3SF3 200-6CV00-0BA1 | 3SF1234-1KC05-1BA1 | -- | -- | -- |
| 3SF3 200-6DV00-0BA1 | -- | 3SF1234-1KC05-1BA1 | 3SE5000-0AD03 | -- |
| 3SF3 200-6EV00-0BA1 | -- | 3SF1234-1KC05-1BA1 | 3SE5000-0AE10 | -- |
| 3SF3 200-6FV00-0BA1 | -- | 3SF1234-1KC05-1BA1 | 3SE5000-0AF10 | -- |
| 3SF3 200-6GV00-0BA1 | -- | 3SF1234-1KC05-1BA1 | 3SE5000-0AK00 | 3SE5000-0AA21 |
| 3SF3 200-8CV00-0BA1 | 3SF1234-1LC05-1BA1 | -- | -- | -- |
| 3SF3 200-8DV00-0BA1 | -- | 3SF1234-1LC05-1BA1 | 3SE5000-0AD03 | -- |
| 3SF3 200-8EV00-0BA1 | -- | 3SF1234-1LC05-1BA1 | 3SE5000-0AE10 | -- |
| 3SF3 200-8FV00-0BA1 | -- | 3SF1234-1LC05-1BA1 | 3SE5000-0AF10 | -- |
| 3SF3 200-8GV00-0BA1 | -- | 3SF1234-1LC05-1BA1 | 3SE5000-0AK00 | 3SE5000-0AA21 |
| 3SF3 210-0CV00-0BA2 | 3SF1244-1KC05-1BA2 | -- | -- | -- |
| 3SF3 210-0DV00-0BA2 | -- | 3SF1244-1KC05-1BA2 | 3SE5000-0AD03 | -- |
| 3SF3 210-0EV00-0BA2 | -- | 3SF1244-1KC05-1BA2 | 3SE5000-0AE10 | -- |
| 3SF3 210-0FV00-0BA2 | -- | 3SF1244-1KC05-1BA2 | 3SE5000-0AF10 | -- |
| 3SF3 210-0GV00-0BA2 | -- | 3SF1244-1KC05-1BA2 | 3SE5000-0AK00 | 3SE5000-0AA21 |
| 3SF3 210-1CV00-0BA2 | 3SF1244-1LC05-1BA2 | -- | -- | -- |
| 3SF3 210-1DV00-0BA2 | -- | 3SF1244-1LC05-1BA2 | 3SE5000-0AD03 | -- |
| 3SF3 210-1EV00-0BA2 | -- | 3SF1244-1LC05-1BA2 | 3SE5000-0AE10 | -- |
| 3SF3 210-1FV00-0BA2 | -- | 3SF1244-1LC05-1BA2 | 3SE5000-0AF10 | -- |
| 3SF3 210-1GV00-0BA2 | -- | 3SF1244-1LC05-1BA2 | 3SE5000-0AK00 | 3SE5000-0AA21 |

| Old Order No. 3SF3 | New Order No. Complete units |
|---|---|
| **With separate actuator** | |
| 3SF3 120-6XX00-0BA1 | 3SF1114-1QV10-1BA1 |
| 3SF3 200-6XX04-0BA1 | 3SF1234-1QV40-1BA1 |
| **With solenoid interlocking** | |
| 3SF3 750-6XX00-0BA1 | 3SF1 324-1SB21-1BA1 |
| 3SF3 760-6XX00-0BA1 | 3SF1 324-1SD21-1BA1 |
| 3SF3 830-6XX00-0BA1 | 3SF1 314-1SB11-1BA1 |
| 3SF3 840-6XX00-0BA1 | 3SF1 314-1SD11-1BA1 |
| 3SF3 850-6XX00-0BA1 | 3SF1 314-1SB11-1BA1 |
| 3SF3 860-6XX00-0BA1 | 3SF1 314-1SD11-1BA1 |

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## General data

### Overview

The innovative SIRIUS 3SE5 position switches are modern in design, compact, modular and simple to connect. They save time and increase flexibility during installation of a whole range of switch variants In principle it is possible to combine any enclosure with any operating mechanism, paying due consideration to the EN 50041 and EN 50047 standards where necessary.

#### *Complete units*

Popular versions of the position switches in standard enclosures are available as complete units.

3SE5 position switches with plastic and metal enclosures

#### *3SE2 series*

The position switches of the 3SE2 series are still available, in particular those switch variants which are not yet covered by the new 3SE5 series, including the complete 3SE2 230 series with 40 mm plastic enclosure and the 3SE2 404 series with metal enclosure and 4 contacts.

3SE2 position switches with plastic and metal enclosures

A conversion table from 3SE2 to 3SE5 can be found on page 8/4.

#### *Modular system*

The 3SE5 series features a new modular system comprising different sizes of the basic switch and an actuator which must be ordered separately. Thanks to the modular design of the switch the user can select the right solution for his application from numerous versions and install it himself in a very short time.

An easy plug-in method enables fast replacement of the actuator heads.

Examples of selection options in the modular system

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## General data

### *Design*

All enclosure variants have an integrated chlorinated rubber diaphragm (high functional safety in cold and aggressive environments).

Enclosure sizes

The 3SE5 switches are available in five different enclosure sizes with 2 or 3 contacts:

- Open-type position switch IP20 or IP10
- Plastic enclosures acc. to EN 50047, 31 mm wide, 1 cable entry
- Plastic enclosures, 50 mm wide, 2 cable entries
- Metal enclosures acc. to EN 50041, 40 mm wide, 1 cable entry
- Metal enclosures, 56 mm wide, 3 cable entries

The following items are available in addition from the 3SE2 series:

- Plastic enclosures acc. to EN 50041, 40 mm wide
- Metal enclosures, 56 mm wide, 4 contacts

Enclosure versions

Various basic switches can be selected for the 3SE5 series:

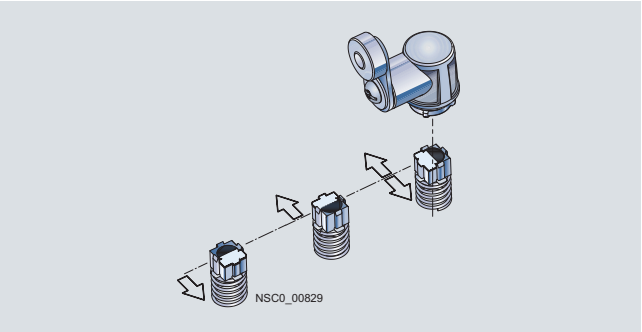
- With contact blocks with two or three contacts (screw terminals) designed as slow-action or snap-action contacts; the slow-action contacts also with make-before-break
- Optional LED status display
- With mounted four- or five-pole M12 connector socket (available for the wide enclosures as an accessory for self-assembly)
- With 6-pole connector socket + PE on the metal enclosures
- Versions with increased corrosion protection
- Versions for operating temperature up to –40 °C
- Metal enclosures for explosion protection (ATEX) (see page 8/69)
- AS-Interface version with integrated ASIsafe electronics for all enclosure designs (see page 8/73)

Actuator variants

All operating mechanisms can be rotated around the axis in increments of 22.5°. The following actuator variants are available:

- Rounded plungers
- Roller plungers
- Roller levers
- Angular roller levers
- Spring rod
- Twist levers and rod actuators
- Fork lever

The actuator rollers are available with various materials and diameters.




Twist actuators for twist levers and rod actuators, with setting of switching to right, left or right/left (standard for all twist actuators except fork levers)

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## General data

### *Optional LED indicators*

LED indicators
available for all enclosure sizes

The enclosure versions can be supplied with an LED signaling indicator (1 × green + 1 × yellow). This is the first time that optical signaling equipment is also available for small standard enclosures acc. to EN 50047. The LED signaling indicators are available in all common voltages (24 V DC and 230 V AC).

### *Additional contacts*

Exchangeable two and three-pole contact blocks for all enclosure sizes

The three-pole contact block with snap-action or slow-action contacts is regularly available for all enclosure forms. The same installation space is required as for a two-pole block. The version with 1 NO + 2 NC offers for example more safety through redundant shutdowns (2 NC contacts) with simultaneous signaling (1 NO contact). The three-pole blocks are also available with make-before-break and with 2 NO + 1 NC.

### *Contact reliability*

The new contact blocks ensure an extremely high contact stability. This applies even when the devices are switching low voltages and currents, e. g. 1 mA at 5 V DC.

### *Positive opening* ➔

The NC contacts of the switch are forced open mechanically, positively-driven and reliably by the plunger. This is referred to as "positive opening".

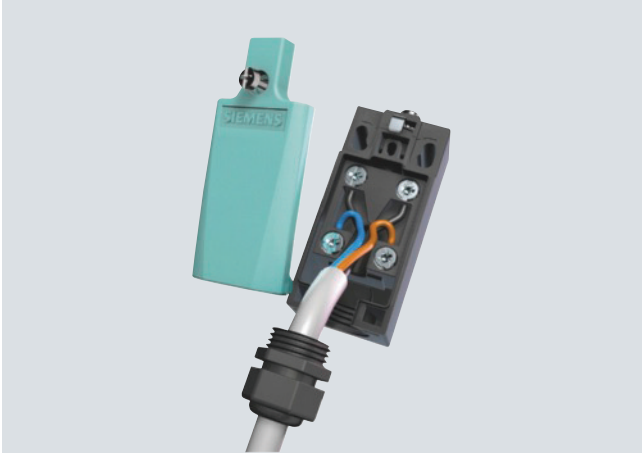
### *Mounting*

Easy plug-in method
for fast replacement of the actuator heads

Open cover (1)
Actuate locking lever (2)
Replace the head (turnable by 16 x 22.5°) (3)
Lock and close the cover

### *Quick-connect technology*

For plastic enclosure with a width of 31 mm




These position switches can be wired quickly and easily as an added customer benefit. The connecting cable is first connected to the terminals of the contact block and then guided through a slit into the cable gland opening. The time saved through this new connection method is approx. 20 to 25 %.

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## Benefits

The 3SE5 position switches differ from the previous series through the following new characteristics:

- The modular structure of the product range allows a number of versions with a smaller number of bearing types for enclosures and operating mechanisms.
- All actuators around the axis in increments of 22.5° (see picture on page 8/16).
- Rounded and roller plungers acc. to EN 50041 with 3 mm overtravel (total travel 9 mm) for greater tolerance when switching.
- All enclosure sizes – now also including the small enclosure 31 mm wide – are optionally available with an LED signaling indicator (see picture on page 8/16).
- All enclosure variants have an integrated chlorinated rubber diaphragm (high functional safety in cold and aggressive environments).
- All contact blocks are replaceable (see page 8/50).
- The three-pole contact blocks are available for all enclosure sizes (see picture on page 8/16).
- NEW: Blocks with slow-action contacts 1 NO + 2 NC with make-before-break and 2 NO + 1 NC.
- The short-stroke contact block 1 NO + 1 NC improves the precision of the switching operation through a reduced actuation path.
- The contact block with 1 NO + 1 NC snap-action contacts with 2 x 2 mm contact opening is suitable for simultaneous disconnection and signaling, particularly in the elevator industry.
- The plastic enclosure with a width of 31 mm has simple and fast wiring equipment which makes it possible to save from approx. 20 to 25 % of the time when connecting (see picture on page 8/16).
- The ASIsafe electric component is integrated for the versions with the AS-Interface connection (see page 8/73); an additional adapter is not required.

## Application

With the standard position switches, mechanical positions of moved machine parts are converted into electrical signals. Through their modular and uniform design and large number of variants, the devices can meet practically all requirements in industry.

Devices are available with enclosure versions to suit the particular ambient conditions. Different control tasks can be performed with the best contact blocks suited for the particular purpose. And many different actuator variants are available to match the mechanical configuration of the moved machined parts. Dimensions, fixing points and characteristics are largely in accordance with the EN 50041 or EN 50047 standards.

The devices are suitable for use in any climate.

### *Standards*

IEC 60947-5-1 or EN 60947-5-1.

The protective measure of "total insulation" by the molded-plastic enclosure is guaranteed by the use of molded-plastic screw-glands.

### *Safety position switches*

For controls acc. to IEC 60204-1 or EN 60204-1 the devices can be used as a safety position switch. To secure position switches against changes in their position, keyed techniques must be employed on installation.

## General data

### *Safety circuits*

IEC 60947-5-1 and EN 60947-5-1 require positive opening of the NC contacts, i. e. for the purposes of personal safety, the assured opening of NC contacts is expressly stipulated for the electrical equipment of machines in all safety circuits and marked acc. to the IEC standard 60947-5-1 with the symbol ➔.

Category 2 acc. to ISO 13849-1 (EN 954-1) can be attained with 3SE5 position switches with ➔, and category 3 or 4 when using an additional position switch, if the corresponding failsafe evaluation units are selected and correctly installed, e. g. the 3TK28 safety relays or matching devices from the ASIsafe, SIMATIC or SINUMERIK product ranges. The operating mechanisms (actuators) must also be connected to the enclosure by keyed techniques. The corresponding operating mechanisms are marked in the catalog with ➔.

### *Contacts for each application*

- Snap-action contacts: NC and NO contacts switch simultaneously – regardless of the actuating speed ($v_{min}$ = 0.01 m/s) and contact erosion.
- Slow-action contacts: Difference in travel between "NC contact opens" and "NO contact closes"; the switching speed is the same as or proportional to the actuating speed ($v_{min}$ = 0.4 m/s).
- Slow-action contacts with make-before-break: e. g. suitable for adding a second function to a sequence control.

### *Operating mechanisms for each application*

Rounded plungers and roller plungers

- Operation in direction of the plunger axis or in case of roller plunger with bar at right angles to the plunger axis
- The roller plunger is recommended for lateral actuation and relatively long overtravel.

Roller and angular roller levers

- For actuators made of finely ground steel in the form of cams, straight-edges (approach angle 30°) or cam disks

Spring rod

- Can be used for undefined actuations and changing starting conditions
- Starting from any direction is possible.

Twist levers and rod actuators

- For a high starting speed ($v$ = 1.5 m/s)
- Variety of starting options
- Insensitive to oil, grinding dust, ice and coarse-grained material
- With the twist lever the maximum approach angle is always equal to the maximum trailing angle
- Rod actuator – when no actuator with approach and trailing angle is possible
- Adjustment of the lever in increments of 10°.
- Can be adjusted with left or right switching

Fork lever

- Switchable in two directions
- Latching actuator
- For reciprocating movements

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## General data

### More information

| Type | | 3SE5 1.., 3SE5 2.. | | 3SE2 230, 3SE2 404 | | Exception: 3SE2 230-8..00 | |
|---|---|---|---|---|---|---|---|
| **General data** | | | | | | | |
| **Standards** | | IEC 60947-5-1, EN 60947-5-1 | | | | | |
| **Rated insulation voltage $U_i$** | V | 400 | | 500 | | | |
| **Pollution degree** acc. to EN 60664-1 | | Class 3 | | Class 3 | | | |
| **Rated impulse withstand voltage $U_{imp}$** | kV | 6 | | 6 | | | |
| **Rated operational voltage $U_e$** | V | 400 V AC, over 300 V AC only for equal potential[1)] | | AC 500; over 380 V AC only equal potential | | AC 500; over 300 V AC only equal potential | |
| **Conventional free-air thermal current $I_{th}$** | A | 10 | 6 | 10 | | 10 | |
| **Rated operational current $I_e$** | | 2-pole | 3-pole | 2-pole and 4-pole | | 2-pole (2 NC snap-action) | |
| • With alternating current 50/60 Hz | | $I_e$/AC-15 | $I_e$/AC-15 | $I_e$/AC-12 | $I_e$/AC-15 | $I_e$/AC-12 | $I_e$/AC-15 |
| - At 24 V | A | 6 | 6 | 10 | 10 | 10 | 10 |
| - At 120 V | A | 6 | 3 | 10 | 10 | 10 | 10 |
| - At 240 V | A | 3 | 1.5 | 10 | 6 | 10 | 6 |
| - At 400 V | A | -- | -- | 10 | 4 | 10 | 4 |
| - At 500 V | A | -- | -- | 10 | 3 | 10 | 3 |
| • For direct current | | $I_e$/DC-13 | $I_e$/DC-13 | $I_e$/DC-12 | $I_e$/DC-13 | $I_e$/DC-12 | $I_e$/DC-13 |
| - At 24 V | A | 3 | 3 | 10 | 10 | 10 | 10 |
| - At 125 V | A | 0.55 | 0.55 | -- | -- | -- | -- |
| - At 250 V | A | 0.27 | 0.27 | -- | -- | -- | -- |
| - At 48 V | | -- | -- | 6 | 4 | 6 | 4 |
| - At 110 V | | -- | -- | 4 | 1 | 4 | 1 |
| - At 220 V | A | -- | -- | 1 | 0.4 | 1 | 0.27 |
| - At 440 V | A | -- | -- | 0.5 | 0.2 | 0.5 | 0.1 |
| **Short-circuit protection**[1)] | | | | | | | |
| • With DIAZED fuse links, operational class gG | A | 6 | | 6 | | 6 | |
| • With fuse links, quick | A | -- | | 10 | | -- | |
| • With miniature circuit breaker, Char. C | A | 1 | | -- | | -- | |
| **Mechanical endurance** | | | | | | | |
| • Basic switches | | $15 \times 10^6$ operating cycles | | $30 \times 10^6$ operating cycles | | $15 \times 10^6$ operating cycles | |
| • With spring rod, 3SE5 ...-..R.. | | $10 \times 10^6$ operating cycles | | | | | |
| • With fork lever 3SE5 1..-..T.. | | $1 \times 10^6$ operating cycles | | -- | | -- | |
| **Electrical endurance** | | | | | | | |
| • With 3RH11, 3RT10 16 to 3RT10 26 contactors | | $10 \times 10^6$ operating cycles | | $10 \times 10^6$ operating cycles | | | |
| • For utilization category AC-15 when switching off $I_e$/AC-15 at 240 V | | $0.1 \times 10^6$ operating cycles | | $0.5 \times 10^6$ operating cycles | | | |
| • With utilization category DC-12/DC-13 | | For direct current depending on the loading of the switch | | | | | |
| **Switching frequency** with 3RH11, 3RT10 16 to 3RT10 26 contactors | | 6000 operating cycles/h | | 6000 operating cycles/h | | 1800 operating cycles/h | |
| **Switching accuracy** For repeated switching, measured at the plunger of the contact block | mm | 0.05 | | | | | |
| **Rated data acc. to ⓒ, ⓤ and ⓤ.** | | | | | | | |
| • Rated voltage | V | 300 | | 600 | | 600 | |
| • Uninterrupted current | A | 6 | | 10 | | 10 | |
| • Switching capacity | | Heavy duty, A 300/ B 300 /Q 300 | | Heavy duty, A 600/Q 600 | | Heavy duty, A 300/Q 600 | |

1) For slow-action contacts 1 NO + 2 NC with make-before-break and 2 NO + 1 NC the following applies: over 250 V AC only equal potential.

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## Options

On the following pages you will find selection tables for complete units as well as components of the modular system.

| | |
|---|---|
| ☐ | Complete units |
| ◇ | Modular system |
| | The difference between units is indicated in the selection and ordering data by orange backgrounds. |

Using the modular system you can assemble switch variants which are not available as complete units. Each complete unit can also be supplied as a module.

A basic switch for the modular system comprises an enclosure with a contact block and a cover. Among the basic switches the following versions, for example, can be selected:

- Basic enclosure with teflon plunger
- Version with increased corrosion protection
- Version with 2 LEDs
- Version with M12 connector socket or 6-pole + PE
- Version with M12 connector socket and with 2 LEDs

For the plastic enclosures with a width of 31 and 50 mm the basic switches are designed as complete units with rounded plunger (acc. to standard).

### *Online configurator*

The online configurator helps you not only to select and order the right switch but also to create complete product documentation.

- Product data sheets
- Dimensional drawings
- Operating travel diagrams
- CAD data in 2D and 3D model images
- Ordering data
- Product photos

www.siemens.com/industrial-controls/configurators

### *Complete units*

Ordering example

Required:
- Position switch acc. to EN 50047 in a plastic enclosure
- Contact block with slow-action contacts 1 NO + 1 NC
- Angular roller lever, metal lever and plastic roller

To be ordered:

| | Version | Complete units ☐ |
|---|---|---|
| | | Order No. |
| **Complete units • Enclosure width 31 mm** | | |
| | ***Angular roller levers*** **With metal lever and plastic roller 13 mm** Slow-action contacts 1 NO + 1 NC | **3SE5 232-0BF10** |

### *Modular system*

Ordering example 1

Required:
- Position switch acc. to EN 50047 in a plastic enclosure
- Contact block with slow-action contacts 1 NO + 1 NC
- Angular roller lever, metal lever and plastic roller

To be ordered separately:

| | Version | Modular system ◇ |
|---|---|---|
| | | Order No. |
| **Basic switches • Enclosure width 31 mm** | | |
| | **With teflon plunger** Slow-action contacts 1 NO + 1 NC | **3SE5 232-0BC05** |
| | | + |
| **Operating mechanisms** | | |
| | **Angular roller levers** Metal lever, plastic roller | **3SE5 000-0AF10** |

Ordering example 2

Required:
- Position switch acc. to EN 50047 in a plastic enclosure
- Contact block with slow-action contacts 1 NO + 1 NC
- Twist lever, high-grade steel lever and plastic roller

To be ordered separately:

| | Version | Modular system ◇ |
|---|---|---|
| | | Order No. |
| **Basic switches • Enclosure width 31 mm** | | |
| | **With teflon plunger** Slow-action contacts 1 NO + 1 NC | **3SE5 232-0BC05** |
| | | + |
| **Twist actuators** | | |
| | **Twist actuator** | **3SE5 000-0AK00** |
| | **Twist levers** High-grade steel lever, plastic roller | **3SE5 000-0AA31** |

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## 3SE5, plastic enclosures
## Enclosure width 31 mm according to EN 50047

### Selection and ordering data

*Complete units*

2 or 3 contacts · Degree of protection IP65 · Cable entry M20 × 1.5

| Version | Contacts | LEDs | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Complete units[1] • Enclosure width 31 mm** | | | | | | | | | |
| *Rounded plungers, type B acc. to EN 50047* | | | | | | | | | |
| **With teflon plunger** | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ ▶ | **3SE5 232-0BC05** | | 1 | 1 unit | 102 | 0.065 |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ B | **3SE5 232-0CC05** | | 1 | 1 unit | 102 | 0.065 |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ➔ ▶ | **3SE5 232-0HC05** | | 1 | 1 unit | 102 | 0.065 |
| Snap-action contacts • Short-stroke, integrated[2] | 1 NO + 1 NC | -- | ➔ B | **3SE5 232-0FC05** | | 1 | 1 unit | 102 | 0.065 |
| Snap-action contacts • 2 × 2 mm contact gap | 1 NO + 1 NC | -- | ➔ B | **3SE5 232-0GC05** | | 1 | 1 unit | 102 | 0.065 |
| Slow-action contacts | 1 NO + 2 NC | -- | ➔ A | **3SE5 232-0KC05** | | 1 | 1 unit | 102 | 0.075 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ A | **3SE5 232-0LC05** | | 1 | 1 unit | 102 | 0.075 |
| Slow-action contacts with make-before-break | 1 NO + 2 NC | -- | ➔ B | **3SE5 232-0MC05** | | 1 | 1 unit | 102 | 0.075 |
| Slow-action contacts | 2 NO + 1 NC | -- | ➔ B | **3SE5 232-0PC05** | | 1 | 1 unit | 102 | 0.075 |
| **With increased corrosion protection** | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ B | **3SE5 232-0BC05-1CA0** | | 1 | 1 unit | 102 | 0.065 |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ B | **3SE5 232-0CC05-1CA0** | | 1 | 1 unit | 102 | 0.065 |
| Slow-action contacts | 1 NO + 2 NC | -- | ➔ B | **3SE5 232-0KC05-1CA0** | | 1 | 1 unit | 102 | 0.075 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ B | **3SE5 232-0LC05-1CA0** | | 1 | 1 unit | 102 | 0.075 |
| Slow-action contacts with make-before-break | 1 NO + 2 NC | -- | ➔ B | **3SE5 232-0MC05-1CA0** | | 1 | 1 unit | 102 | 0.075 |
| Slow-action contacts | 2 NO + 1 NC | -- | ➔ B | **3SE5 232-0PC05-1CA0** | | 1 | 1 unit | 102 | 0.075 |
| **With M12 connector socket, 4-pole** (250 V, 4 A) | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ B | **3SE5 234-0BC05-1AC4** | | 1 | 1 unit | 102 | 0.080 |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ➔ A | **3SE5 234-0HC05-1AC4** | | 1 | 1 unit | 102 | 0.080 |
| Slow-action contacts | 2 NC | -- | ➔ B | **3SE5 234-0KC05-1AE0** | | 1 | 1 unit | 102 | 0.085 |
| Snap-action contacts | 2 NC | -- | ➔ A | **3SE5 234-0LC05-1AE0** | | 1 | 1 unit | 102 | 0.085 |
| **With 2 LEDs, yellow/green** | | | | | | | | | |
| Slow-action contacts | 1 NO + 2 NC | 24 V DC | ➔ B | **3SE5 232-1KC05** | | 1 | 1 unit | 102 | 0.070 |
| Snap-action contacts | 1 NO + 2 NC | 24 V DC | ➔ B | **3SE5 232-1LC05** | | 1 | 1 unit | 102 | 0.070 |
| Slow-action contacts | 1 NO + 2 NC | 230 V AC | ➔ B | **3SE5 232-3KC05** | | 1 | 1 unit | 102 | 0.070 |
| Snap-action contacts | 1 NO + 2 NC | 230 V AC | ➔ B | **3SE5 232-3LC05** | | 1 | 1 unit | 102 | 0.070 |
| **With M12 connector socket, 5-pole** (125 V, 4 A) **and 2 LEDs** | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | 24 V DC | ➔ B | **3SE5 234-1BC05-1AF3** | | 1 | 1 unit | 102 | 0.080 |
| Snap-action contacts | 1 NO + 1 NC | 24 V DC | ➔ B | **3SE5 234-1CC05-1AF3** | | 1 | 1 unit | 102 | 0.080 |
| *Roller plungers, type C acc. to EN 50047* | | | | | | | | | |
| **With plastic roller 10 mm** | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ B | **3SE5 232-0BD03** | | 1 | 1 unit | 102 | 0.075 |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ➔ ▶ | **3SE5 232-0HD03** | | 1 | 1 unit | 102 | 0.075 |
| Snap-action contacts • Short-stroke, integrated[2] | 1 NO + 1 NC | -- | ➔ B | **3SE5 232-0FD03** | | 1 | 1 unit | 102 | 0.075 |
| Slow-action contacts | 1 NO + 2 NC | -- | ➔ B | **3SE5 232-0KD03** | | 1 | 1 unit | 102 | 0.080 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ B | **3SE5 232-0LD03** | | 1 | 1 unit | 102 | 0.080 |
| **Actuator head rotated by 90°** | | | | | | | | | |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ B | **3SE5 232-0LD03-1AH0** | | 1 | 1 unit | 102 | 0.075 |
| **With M12 connector socket, 4-pole** (250 V, 4 A) | | | | | | | | | |
| Snap-action contacts, integrated[2] | 1 NO + 1 NC | -- | ➔ B | **3SE5 234-0HD03-1AC4** | | 1 | 1 unit | 102 | 0.085 |
| *Roller plunger with central fixing* | | | | | | | | | |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ➔ B | **3SE5 232-0HD10** | | 1 | 1 unit | 102 | 0.100 |
| Slow-action contacts | 1 NO + 2 NC | -- | ➔ B | **3SE5 232-0KD10** | | 1 | 1 unit | 102 | 0.105 |

Rounded plunger

With increased corrosion protection

With 2 LEDs

Roller plunger

Roller plunger with central fixing

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

[1] Popular versions.
[2] Subsequent replacement of contact blocks is not possible.

* You can order this quantity or a multiple thereof.

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## 3SE5, plastic enclosures
## Enclosure width 31 mm according to EN 50047

2 or 3 contacts · Degree of protection IP65 · Cable entry M20 × 1.5

| Version | Contacts | LEDs | | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **Complete units[1] • Enclosure width 31 mm** | | | | | | | | | | |
| ***Roller levers, type E acc. to EN 50047*** | | | | | | | | | | |
| **With metal lever and plastic roller 13 mm** | | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ⊖ | A | **3SE5 232-0BE10** | | 1 | 1 unit | 102 | 0.065 |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ⊖ | ▶ | **3SE5 232-0HE10** | | 1 | 1 unit | 102 | 0.065 |
| Slow-action contacts | 1 NO + 2 NC | -- | ⊖ | B | **3SE5 232-0KE10** | | 1 | 1 unit | 102 | 0.065 |
| Snap-action contacts | 1 NO + 2 NC | -- | ⊖ | B | **3SE5 232-0LE10** | | 1 | 1 unit | 102 | 0.075 |
| **With M12 connector socket, 4-pole** (250 V, 4 A) | | | | | | | | | | |
| Snap-action contacts, integrated[2] | 1 NO + 1 NC | -- | ⊖ | B | **3SE5 234-0HE10-1AC4** | | 1 | 1 unit | 102 | 0.075 |
| ***Angular roller levers*** | | | | | | | | | | |
| **With metal lever and plastic roller 13 mm** | | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ⊖ | B | **3SE5 232-0BF10** | | 1 | 1 unit | 102 | 0.070 |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ⊖ | A | **3SE5 232-0HF10** | | 1 | 1 unit | 102 | 0.070 |
| Slow-action contacts | 1 NO + 2 NC | -- | ⊖ | B | **3SE5 232-0KF10** | | 1 | 1 unit | 102 | 0.080 |
| Snap-action contacts | 1 NO + 2 NC | -- | ⊖ | B | **3SE5 232-0LF10** | | 1 | 1 unit | 102 | 0.070 |
| ***Spring rod*** | | | | | | | | | | |
| **Length 142.5 mm, with plastic plunger 50 mm** | | | | | | | | | | |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | | A | **3SE5 232-0HR01** | | 1 | 1 unit | 102 | 0.095 |
| **With M12 connector socket, 4-pole** (250 V, 4 A) | | | | | | | | | | |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | | B | **3SE5 234-0HR01-1AC4** | | 1 | 1 unit | 102 | 0.135 |
| ***Twist levers, type A acc. to EN 50047*** | | | | | | | | | | |
| **With metal lever 21 mm and plastic roller 19 mm** | | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ⊖ | A | **3SE5 232-0BK21** | | 1 | 1 unit | 102 | 0.085 |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ⊖ | B | **3SE5 232-0HK21** | | 1 | 1 unit | 102 | 0.085 |
| Slow-action contacts | 1 NO + 2 NC | -- | ⊖ | B | **3SE5 232-0KK21** | | 1 | 1 unit | 102 | 0.100 |
| Snap-action contacts | 1 NO + 2 NC | -- | ⊖ | B | **3SE5 232-0LK21** | | 1 | 1 unit | 102 | 0.100 |
| **With M12 connector socket, 4-pole** (250 V, 4 A) | | | | | | | | | | |
| Snap-action contacts, integrated[2] | 1 NO + 1 NC | - | ⊖ | B | **3SE5 234-0HK21-1AC4** | | 1 | 1 unit | 102 | 0.110 |
| ***Twist levers, adjustable length*** | | | | | | | | | | |
| **With metal lever with grid hole and plastic roller 19 mm** | | | | | | | | | | |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ⊖ | A | **3SE5 232-0HK60** | | 1 | 1 unit | 102 | 0.100 |
| **With metal lever and plastic roller 19 mm** | | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | | B | **3SE5 232-0BK50** | | 1 | 1 unit | 102 | 0.115 |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | | ▶ | **3SE5 232-0HK50** | | 1 | 1 unit | 102 | 0.115 |
| Snap-action contacts | 1 NO + 2 NC | -- | | B | **3SE5 232-0LK50** | | 1 | 1 unit | 102 | 0.120 |
| **With M12 connector socket, 4-pole** (250 V, 4 A) | | | | | | | | | | |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | | B | **3SE5 234-0HK50-1AC4** | | 1 | 1 unit | 102 | 0.120 |
| ***Rod actuators*** | | | | | | | | | | |
| **With aluminum rod, length 200 mm** | | | | | | | | | | |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | | B | **3SE5 232-0HK80** | | 1 | 1 unit | 102 | 0.110 |
| **With plastic rod, length 200 mm** | | | | | | | | | | |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | | B | **3SE5 232-0HK82** | | 1 | 1 unit | 102 | 0.100 |
| **With M12 connector socket, 4-pole** (250 V, 4 A) | | | | | | | | | | |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | | B | **3SE5 234-0HK82-1AC4** | | 1 | 1 unit | 102 | 0.115 |

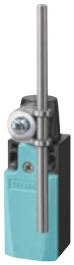
Roller levers

Angular roller lever

Spring rod

Twist lever

Twist lever, adjustable length


Rod actuator

⊖ Positive opening acc. to IEC 60947-5-1, Appendix K.

[1] Popular versions.

[2] Subsequent replacement of contact blocks is not possible.

*Note: If the device you require is not available as a complete unit, see "Modular system" on the next page.*

*** You can order this quantity or a multiple thereof.**

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## 3SE5, plastic enclosures
## Enclosure width 31 mm according to EN 50047

### *Modular system*

2 or 3 contacts · Degree of protection IP65 · Cable entry M20 × 1.5

| | Version | Contacts | LEDs | | DT | Modular system Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Basic switches • Enclosure width 31 mm (with rounded plunger[1])** | | | | | | | | | | | |
| Basic switch | **With teflon plunger** | | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | -- | ⊖ | ▶ | **3SE5 232-0BC05** | | 1 | 1 unit | 102 | 0.065 |
| | Snap-action contacts | 1 NO + 1 NC | -- | ⊖ | B | **3SE5 232-0CC05** | | 1 | 1 unit | 102 | 0.065 |
| | Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ⊖ | ▶ | **3SE5 232-0HC05** | | 1 | 1 unit | 102 | 0.065 |
| | Snap-action contacts • Short-stroke, integrated[2] | 1 NO + 1 NC | -- | ⊖ | B | **3SE5 232-0FC05** | | 1 | 1 unit | 102 | 0.065 |
| | Snap-action contacts • 2 × 2 mm contact gap | 1 NO + 1 NC | -- | ⊖ | B | **3SE5 232-0GC05** | | 1 | 1 unit | 102 | 0.065 |
| | Slow-action contacts | 1 NO + 2 NC | -- | ⊖ | A | **3SE5 232-0KC05** | | 1 | 1 unit | 102 | 0.075 |
| | Snap-action contacts | 1 NO + 2 NC | -- | ⊖ | A | **3SE5 232-0LC05** | | 1 | 1 unit | 102 | 0.075 |
| | Slow-action contacts with make-before-break | 1 NO + 2 NC | -- | ⊖ | B | **3SE5 232-0MC05** | | 1 | 1 unit | 102 | 0.075 |
| | Slow-action contacts | 2 NO + 1 NC | -- | ⊖ | B | **3SE5 232-0PC05** | | 1 | 1 unit | 102 | 0.075 |
| With increased corrosion protection | **With increased corrosion protection[3]** | | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | -- | ⊖ | B | **3SE5 232-0BC05-1CA0** | | 1 | 1 unit | 102 | 0.065 |
| | Snap-action contacts | 1 NO + 1 NC | -- | ⊖ | B | **3SE5 232-0CC05-1CA0** | | 1 | 1 unit | 102 | 0.065 |
| | Slow-action contacts | 1 NO + 2 NC | -- | ⊖ | B | **3SE5 232-0KC05-1CA0** | | 1 | 1 unit | 102 | 0.075 |
| | Snap-action contacts | 1 NO + 2 NC | -- | ⊖ | B | **3SE5 232-0LC05-1CA0** | | 1 | 1 unit | 102 | 0.075 |
| | Slow-action contacts with make-before-break | 1 NO + 2 NC | -- | ⊖ | B | **3SE5 232-0MC05-1CA0** | | 1 | 1 unit | 102 | 0.075 |
| | Slow-action contacts | 2 NO + 1 NC | -- | ⊖ | B | **3SE5 232-0PC05-1CA0** | | 1 | 1 unit | 102 | 0.075 |
| With M12 socket | **With M12 connector socket, 4-pole** (250 V, 4 A) | | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | -- | ⊖ | B | **3SE5 234-0BC05-1AC4** | | 1 | 1 unit | 102 | 0.080 |
| | Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ⊖ | A | **3SE5 234-0HC05-1AC4** | | 1 | 1 unit | 102 | 0.080 |
| | Slow-action contacts | 2 NC | -- | ⊖ | B | **3SE5 234-0KC05-1AE0** | | 1 | 1 unit | 102 | 0.085 |
| | Snap-action contacts | 2 NC | -- | ⊖ | A | **3SE5 234-0LC05-1AE0** | | 1 | 1 unit | 102 | 0.085 |
| With 2 LEDs | **With 2 LEDs, yellow/green** | | | | | | | | | | |
| | Slow-action contacts | 1 NO + 2 NC | 24 V DC | ⊖ | B | **3SE5 232-1KC05** | | 1 | 1 unit | 102 | 0.070 |
| | Snap-action contacts | 1 NO + 2 NC | 24 V DC | ⊖ | B | **3SE5 232-1LC05** | | 1 | 1 unit | 102 | 0.070 |
| | Slow-action contacts | 1 NO + 2 NC | 230 V AC | ⊖ | B | **3SE5 232-3KC05** | | 1 | 1 unit | 102 | 0.070 |
| | Snap-action contacts | 1 NO + 2 NC | 230 V AC | ⊖ | B | **3SE5 232-3LC05** | | 1 | 1 unit | 102 | 0.070 |
| With M12 socket and 2 LEDs | **With M12 connector socket, 5-pole** (125 V, 4 A) **and 2 LEDs** | | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | 24 V DC | ⊖ | B | **3SE5 234-1BC05-1AF3** | | 1 | 1 unit | 102 | 0.080 |
| | Snap-action contacts | 1 NO + 1 NC | 24 V DC | ⊖ | B | **3SE5 234-1CC05-1AF3** | | 1 | 1 unit | 102 | 0.080 |

⊖ Positive opening acc. to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

1) On the plastic version the basic switch is a complete unit with rounded plunger.

2) Subsequent replacement of contact blocks is not possible.

3) Use corresponding high-grade steel lever.

*Note: For selection aid, see page 8/19.*

* You can order this quantity or a multiple thereof.

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## 3SE5, plastic enclosures
## Enclosure width 31 mm according to EN 50047

| | Version | Diameter mm | DT | Modular system Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Operating mechanisms** | | | | | | | | | |
| Roller plunger | **Roller plunger, type C acc. to EN 50047** | | | | | | | | |
| | Plastic rollers | 10 | A | **3SE5 000-0AD03** | | 1 | 1 unit | 102 | 0.010 |
| | High-grade steel rollers | 10 | B | **3SE5 000-0AD04** | | 1 | 1 unit | 102 | 0.010 |
| With central fixing | **Roller plunger with central fixing** | | | | | | | | |
| | Plastic rollers | 10 | B | **3SE5 000-0AD10** | | 1 | 1 unit | 102 | 0.035 |
| | High-grade steel rollers | 10 | B | **3SE5 000-0AD11** | | 1 | 1 unit | 102 | 0.030 |
| Roller lever | **Roller lever, type E acc. to EN 50047** | | | | | | | | |
| | Metal lever, plastic roller | 13 | A | **3SE5 000-0AE10** | | 1 | 1 unit | 102 | 0.015 |
| | Metal lever, high-grade steel roller | 13 | B | **3SE5 000-0AE11** | | 1 | 1 unit | 102 | 0.020 |
| | High-grade steel lever, plastic roller | 13 | B | **3SE5 000-0AE12** | | 1 | 1 unit | 102 | 0.010 |
| | High-grade steel lever, high-grade steel roller | 13 | B | **3SE5 000-0AE13** | | 1 | 1 unit | 102 | 0.055 |
| Angular roller lever | **Angular roller levers** | | | | | | | | |
| | Metal lever, plastic roller | 13 | A | **3SE5 000-0AF10** | | 1 | 1 unit | 102 | 0.015 |
| | Metal lever, high-grade steel roller | 13 | B | **3SE5 000-0AF11** | | 1 | 1 unit | 102 | 0.013 |
| | High-grade steel lever, plastic roller | 13 | A | **3SE5 000-0AF12** | | 1 | 1 unit | 102 | 0.015 |
| | High-grade steel lever, high-grade steel roller | 13 | B | **3SE5 000-0AF13** | | 1 | 1 unit | 102 | 0.020 |
| Spring rod | **Spring rod** (for switches with snap-action contacts only) | | | | | | | | |
| | Plastic plunger: | | | | | | | | |
| | • Length 142.5 mm (spring 50 mm, plunger 50 mm) | | B | **3SE5 000-0AR01** | | 1 | 1 unit | 102 | 0.060 |
| | • Length 76 mm (spring 23.5 mm, plunger 10 mm) | | B | **3SE5 000-0AR03** | | 1 | 1 unit | 102 | 0.020 |
| | • Length 242.5 mm (spring 150 mm, plunger 50 mm) | | B | **3SE5 000-0AR04** | | 1 | 1 unit | 102 | 0.040 |
| | High-grade steel plunger: | | | | | | | | |
| | • Length 142.5 mm (spring 50 mm, plunger 50 mm) | | B | **3SE5 000-0AR02** | | 1 | 1 unit | 102 | 0.040 |
| **Twist actuators** | | | | | | | | | |
| Twist actuator | **Twist actuators**, plastic (without lever) | | | | | | | | |
| | Switching right and/or left, adjustable | | A | **3SE5 000-0AK00** | | 1 | 1 unit | 102 | 0.025 |
| | ***Levers for twist actuators*** | | | | | | | | |
| Twist lever | **Twist lever 21 mm, straight, type A acc. to EN 50047** | | | | | | | | |
| | Metal lever, plastic roller | 19 | A | **3SE5 000-0AA21** | | 1 | 1 unit | 102 | 0.010 |
| | Metal lever, high-grade steel roller | 19 | B | **3SE5 000-0AA22** | | 1 | 1 unit | 102 | 0.025 |
| | Metal lever, roller with ball bearing | 19 | B | **3SE5 000-0AA23** | | 1 | 1 unit | 102 | 0.020 |
| | Metal lever, plastic roller | 30 | B | **3SE5 000-0AA25** | | 1 | 1 unit | 102 | 0.010 |
| | High-grade steel lever, plastic roller | 19 | B | **3SE5 000-0AA31** | | 1 | 1 unit | 102 | 0.015 |
| | High-grade steel lever, high-grade steel roller | 19 | B | **3SE5 000-0AA32** | | 1 | 1 unit | 102 | 0.022 |
| Twist levers, adjustable length | **Twist levers, adjustable length, with grid holes** | | | | | | | | |
| | Metal lever, plastic roller | 19 | B | **3SE5 000-0AA60** | | 1 | 1 unit | 102 | 0.025 |
| | Metal lever, high-grade steel roller | 19 | B | **3SE5 000-0AA61** | | 1 | 1 unit | 102 | 0.040 |
| | Metal lever, plastic roller | 50 | B | **3SE5 000-0AA67** | | 1 | 1 unit | 102 | 0.025 |
| | Metal lever, rubber roller | 50 | B | **3SE5 000-0AA68** | | 1 | 1 unit | 102 | 0.045 |
| | High-grade steel lever, plastic roller | 19 | B | **3SE5 000-0AA62** | | 1 | 1 unit | 102 | 0.025 |
| | High-grade steel lever, high-grade steel roller | 19 | B | **3SE5 000-0AA63** | | 1 | 1 unit | 102 | 0.040 |
| Rod actuator | **Twist levers, adjustable length** | | | | | | | | |
| | Metal lever, plastic roller | 19 | A | **3SE5 000-0AA50** | | 1 | 1 unit | 102 | 0.025 |
| | Metal lever, high-grade steel roller | 19 | B | **3SE5 000-0AA51** | | 1 | 1 unit | 102 | 0.035 |
| | Metal lever, plastic roller | 30 | B | **3SE5 000-0AA55** | | 1 | 1 unit | 102 | 0.025 |
| | Metal lever, plastic roller | 50 | B | **3SE5 000-0AA57** | | 1 | 1 unit | 102 | 0.025 |
| | Metal lever, rubber roller | 50 | B | **3SE5 000-0AA58** | | 1 | 1 unit | 102 | 0.040 |
| | High-grade steel lever, plastic roller | 19 | B | **3SE5 000-0AA52** | | 1 | 1 unit | 102 | 0.025 |
| | High-grade steel lever, high-grade steel roller | 19 | B | **3SE5 000-0AA53** | | 1 | 1 unit | 102 | 0.035 |
| | **Rod actuators** | | | | | | | | |
| | Aluminum rod, length 200 mm | 6 | B | **3SE5 000-0AA80** | | 1 | 1 unit | 102 | 0.070 |
| | Spring rod, length 200 mm | 6 | B | **3SE5 000-0AA81** | | 1 | 1 unit | 102 | 0.030 |
| | Plastic rod, length 200 mm | 6 | B | **3SE5 000-0AA82** | | 1 | 1 unit | 102 | 0.020 |

* You can order this quantity or a multiple thereof.

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## 3SE5, plastic enclosures
## Enclosure width 50 mm

### Selection and ordering data

*Complete units*

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry 2 × (M20 × 1.5)

| Version | Contacts | LEDs | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Complete units[1] • Enclosure width 50 mm** | | | | | | | | | |
| *Rounded plungers* | | | | | | | | | |
| **With teflon plunger** | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | A | **3SE5 242-0BC05** | | 1 | 1 unit | 102 | 0.065 |
| Snap-action contacts | 1 NO + 1 NC | -- | B | **3SE5 242-0CC05** | | 1 | 1 unit | 102 | 0.065 |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ► | **3SE5 242-0HC05** | | 1 | 1 unit | 102 | 0.065 |
| Snap-action contacts • Short-stroke, integrated[2] | 1 NO + 1 NC | -- | B | **3SE5 242-0FC05** | | 1 | 1 unit | 102 | 0.065 |
| Snap-action contacts • 2 × 2 mm contact gap | 1 NO + 1 NC | -- | B | **3SE5 242-0GC05** | | 1 | 1 unit | 102 | 0.065 |
| Slow-action contacts | 1 NO + 2 NC | -- | B | **3SE5 242-0KC05** | | 1 | 1 unit | 102 | 0.065 |
| Snap-action contacts | 1 NO + 2 NC | -- | B | **3SE5 242-0LC05** | | 1 | 1 unit | 102 | 0.065 |
| Slow-action contacts with make-before-break | 1 NO + 2 NC | -- | B | **3SE5 242-0MC05** | | 1 | 1 unit | 102 | 0.065 |
| Slow-action contacts | 2 NO + 1 NC | -- | B | **3SE5 242-0PC05** | | 1 | 1 unit | 102 | 0.065 |
| **With increased corrosion protection** | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | B | **3SE5 242-0BC05-1CA0** | | 1 | 1 unit | 102 | 0.065 |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | B | **3SE5 242-0HC05-1CA0** | | 1 | 1 unit | 102 | 0.065 |
| Slow-action contacts | 1 NO + 2 NC | -- | B | **3SE5 242-0KC05-1CA0** | | 1 | 1 unit | 102 | 0.075 |
| Snap-action contacts | 1 NO + 2 NC | -- | B | **3SE5 242-0LC05-1CA0** | | 1 | 1 unit | 102 | 0.075 |
| Slow-action contacts with make-before-break | 1 NO + 2 NC | -- | B | **3SE5 242-0MC05-1CA0** | | 1 | 1 unit | 102 | 0.075 |
| Slow-action contacts | 2 NO + 1 NC | -- | B | **3SE5 242-0PC05-1CA0** | | 1 | 1 unit | 102 | 0.075 |
| **With 2 LEDs, yellow/green** | | | | | | | | | |
| Slow-action contacts | 1 NO + 2 NC | 24 V DC | B | **3SE5 242-1KC05** | | 1 | 1 unit | 102 | 0.070 |
| Snap-action contacts | 1 NO + 2 NC | 24 V DC | B | **3SE5 242-1LC05** | | 1 | 1 unit | 102 | 0.070 |
| Slow-action contacts | 1 NO + 2 NC | 230 V AC | B | **3SE5 242-3KC05** | | 1 | 1 unit | 102 | 0.080 |
| Snap-action contacts | 1 NO + 2 NC | 230 V AC | B | **3SE5 242-3LC05** | | 1 | 1 unit | 102 | 0.080 |
| *Roller plungers* | | | | | | | | | |
| **With plastic roller 10 mm** | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | B | **3SE5 242-0BD03** | | 1 | 1 unit | 102 | 0.075 |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | A | **3SE5 242-0HD03** | | 1 | 1 unit | 102 | 0.075 |
| Snap-action contacts | 1 NO + 2 NC | -- | B | **3SE5 242-0LD03** | | 1 | 1 unit | 102 | 0.080 |

Rounded plunger

With increased corrosion protection

With 2 LEDs

Roller plunger

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

1) Popular versions.

2) Subsequent replacement of contact blocks is not possible.

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* You can order this quantity or a multiple thereof.

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## 3SE5, plastic enclosures
## Enclosure width 50 mm

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry 2 × (M20 × 1.5)

| Version | Contacts | LEDs | | DT | Complete units<br>Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **Complete units[1] • Enclosure width 50 mm** | | | | | | | | | | |
| ***Roller levers*** | | | | | | | | | | |
| **With metal lever and plastic roller 13 mm** | | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 242-0BE10** | | 1 | 1 unit | 102 | 0.080 |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ➔ | A | **3SE5 242-0HE10** | | 1 | 1 unit | 102 | 0.080 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 242-0LE10** | | 1 | 1 unit | 102 | 0.090 |
| **With M12 connector socket, 4-pole right** (250 V, 4 A) | | | | | | | | | | |
| Snap-action contacts | 2 NC | -- | ➔ | B | **3SE5 244-0LE10-1AE0** | | 1 | 1 unit | 102 | 0.100 |
| ***Twist levers*** | | | | | | | | | | |
| **With metal lever 21 mm and plastic roller 19 mm** | | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 242-0BK21** | | 1 | 1 unit | 102 | 0.095 |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ➔ | A | **3SE5 242-0HK21** | | 1 | 1 unit | 102 | 0.095 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 242-0LK21** | | 1 | 1 unit | 102 | 0.105 |
| ***Twist levers, adjustable length*** | | | | | | | | | | |
| **With metal lever and plastic roller 19 mm** | | | | | | | | | | |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | | B | **3SE5 242-0HK50** | | 1 | 1 unit | 102 | 0.110 |

Roller lever

Twist lever

Twist lever, adjustable length

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

1) Popular versions.

2) Subsequent replacement of contact blocks is not possible.

*Note: If the device you require is not available as a complete unit, see "Modular system" on the next page.*

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* You can order this quantity or a multiple thereof.

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## 3SE5, plastic enclosures
## Enclosure width 50 mm

*Modular system*

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry 2 × (M20 × 1.5)

| | Version | Contacts | LEDs | | DT | Modular system Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Basic switches • Enclosure width 50 mm (with rounded plunger[1])** | | | | | | | | | | | |
| Basic switch | **With teflon plunger** | | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | -- | ➔ | A | **3SE5 242-0BC05** | | 1 | 1 unit | 102 | 0.065 |
| | Snap-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 242-0CC05** | | 1 | 1 unit | 102 | 0.065 |
| | Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ➔ | ► | **3SE5 242-0HC05** | | 1 | 1 unit | 102 | 0.065 |
| | Snap-action contacts • Short-stroke, integrated[2] | 1 NO + 1 NC | -- | ➔ | B | **3SE5 242-0FC05** | | 1 | 1 unit | 102 | 0.065 |
| | Snap-action contacts • 2 × 2 mm contact gap | 1 NO + 1 NC | -- | ➔ | B | **3SE5 242-0GC05** | | 1 | 1 unit | 102 | 0.065 |
| | Slow-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 242-0KC05** | | 1 | 1 unit | 102 | 0.065 |
| | Snap-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 242-0LC05** | | 1 | 1 unit | 102 | 0.065 |
| | Slow-action contacts with make-before-break | 1 NO + 2 NC | -- | ➔ | B | **3SE5 242-0MC05** | | 1 | 1 unit | 102 | 0.065 |
| | Slow-action contacts | 2 NO + 1 NC | -- | ➔ | B | **3SE5 242-0PC05** | | 1 | 1 unit | 102 | 0.065 |
| With increased corrosion protection | **With increased corrosion protection[3]** | | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 242-0BC05-1CA0** | | 1 | 1 unit | 102 | 0.065 |
| | Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ➔ | B | **3SE5 242-0HC05-1CA0** | | 1 | 1 unit | 102 | 0.065 |
| | Slow-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 242-0KC05-1CA0** | | 1 | 1 unit | 102 | 0.075 |
| | Snap-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 242-0LC05-1CA0** | | 1 | 1 unit | 102 | 0.075 |
| | Slow-action contacts with make-before-break | 1 NO + 2 NC | -- | ➔ | B | **3SE5 242-0MC05-1CA0** | | 1 | 1 unit | 102 | 0.075 |
| | Slow-action contacts | 2 NO + 1 NC | -- | ➔ | B | **3SE5 242-0PC05-1CA0** | | 1 | 1 unit | 102 | 0.075 |
| With 2 LEDs | **With 2 LEDs, yellow/green** | | | | | | | | | | |
| | Slow-action contacts | 1 NO + 2 NC | 24 V DC | ➔ | B | **3SE5 242-1KC05** | | 1 | 1 unit | 102 | 0.070 |
| | Snap-action contacts | 1 NO + 2 NC | 24 V DC | ➔ | B | **3SE5 242-1LC05** | | 1 | 1 unit | 102 | 0.070 |
| | Slow-action contacts | 1 NO + 2 NC | 230 V | ➔ | B | **3SE5 242-3KC05** | | 1 | 1 unit | 102 | 0.080 |
| | Snap-action contacts | 1 NO + 2 NC | 230 V | ➔ | B | **3SE5 242-3LC05** | | 1 | 1 unit | 102 | 0.080 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

1) On the plastic version the basic switch is a complete unit with rounded plunger.

2) Subsequent replacement of contact blocks is not possible.

3) Use corresponding high-grade steel lever.

*Note: For selection aid, see page 8/19.*



* You can order this quantity or a multiple thereof.

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## 3SE5, plastic enclosures
## Enclosure width 50 mm

| | Version | Diameter mm | DT | Modular system Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Operating mechanisms** | | | | | | | | | |
| Roller plunger | **Roller plunger, type C acc. to EN 50047** | | | | | | | | |
| | Plastic rollers | 10 | A | **3SE5 000-0AD03** | | 1 | 1 unit | 102 | 0.010 |
| | High-grade steel rollers | 10 | B | **3SE5 000-0AD04** | | 1 | 1 unit | 102 | 0.010 |
| With central fixing | **Roller plunger with central fixing** | | | | | | | | |
| | Plastic rollers | 10 | B | **3SE5 000-0AD10** | | 1 | 1 unit | 102 | 0.035 |
| | High-grade steel rollers | 10 | B | **3SE5 000-0AD11** | | 1 | 1 unit | 102 | 0.030 |
| Roller lever | **Roller lever, type E acc. to EN 50047** | | | | | | | | |
| | Metal lever, plastic roller | 13 | A | **3SE5 000-0AE10** | | 1 | 1 unit | 102 | 0.015 |
| | Metal lever, high-grade steel roller | 13 | B | **3SE5 000-0AE11** | | 1 | 1 unit | 102 | 0.020 |
| | High-grade steel lever, plastic roller | 13 | B | **3SE5 000-0AE12** | | 1 | 1 unit | 102 | 0.010 |
| | High-grade steel lever, high-grade steel roller | 13 | B | **3SE5 000-0AE13** | | 1 | 1 unit | 102 | 0.055 |
| Angular roller lever | **Angular roller levers** | | | | | | | | |
| | Metal lever, plastic roller | 13 | A | **3SE5 000-0AF10** | | 1 | 1 unit | 102 | 0.015 |
| | Metal lever, high-grade steel roller | 13 | B | **3SE5 000-0AF11** | | 1 | 1 unit | 102 | 0.013 |
| | High-grade steel lever, plastic roller | 13 | A | **3SE5 000-0AF12** | | 1 | 1 unit | 102 | 0.015 |
| | High-grade steel lever, high-grade steel roller | 13 | B | **3SE5 000-0AF13** | | 1 | 1 unit | 102 | 0.020 |
| Spring rod | **Spring rod** (for switches with snap-action contacts only) | | | | | | | | |
| | Plastic plunger: | | | | | | | | |
| | • Length 142.5 mm (spring 50 mm, plunger 50 mm) | | B | **3SE5 000-0AR01** | | 1 | 1 unit | 102 | 0.060 |
| | • Length 76 mm (spring 23.5 mm, plunger 10 mm) | | B | **3SE5 000-0AR03** | | 1 | 1 unit | 102 | 0.020 |
| | • Length 242.5 mm (spring 150 mm, plunger 50 mm) | | B | **3SE5 000-0AR04** | | 1 | 1 unit | 102 | 0.040 |
| | High-grade steel plunger: | | | | | | | | |
| | • Length 142.5 mm (spring 50 mm, plunger 50 mm) | | B | **3SE5 000-0AR02** | | 1 | 1 unit | 102 | 0.040 |
| **Twist actuators** | | | | | | | | | |
| Twist actuator | **Twist actuators**, plastic (without lever) | | | | | | | | |
| | Switching right and/or left, adjustable | | A | **3SE5 000-0AK00** | | 1 | 1 unit | 102 | 0.025 |
| | ***Levers for twist actuators*** | | | | | | | | |
| Twist lever | **Twist lever 21 mm, straight, type A acc. to EN 50047** | | | | | | | | |
| | Metal lever, plastic roller | 19 | A | **3SE5 000-0AA21** | | 1 | 1 unit | 102 | 0.010 |
| | Metal lever, high-grade steel roller | 19 | B | **3SE5 000-0AA22** | | 1 | 1 unit | 102 | 0.025 |
| | Metal lever, roller with ball bearing | 19 | B | **3SE5 000-0AA23** | | 1 | 1 unit | 102 | 0.020 |
| | Metal lever, plastic roller | 30 | B | **3SE5 000-0AA25** | | 1 | 1 unit | 102 | 0.010 |
| | High-grade steel lever, plastic roller | 19 | B | **3SE5 000-0AA31** | | 1 | 1 unit | 102 | 0.015 |
| | High-grade steel lever, high-grade steel roller | 19 | B | **3SE5 000-0AA32** | | 1 | 1 unit | 102 | 0.022 |
| Twist levers, adjustable length | **Twist levers, adjustable length, with grid holes** | | | | | | | | |
| | Metal lever, plastic roller | 19 | B | **3SE5 000-0AA60** | | 1 | 1 unit | 102 | 0.025 |
| | Metal lever, high-grade steel roller | 19 | B | **3SE5 000-0AA61** | | 1 | 1 unit | 102 | 0.040 |
| | Metal lever, plastic roller | 50 | B | **3SE5 000-0AA67** | | 1 | 1 unit | 102 | 0.025 |
| | Metal lever, rubber roller | 50 | B | **3SE5 000-0AA68** | | 1 | 1 unit | 102 | 0.045 |
| | High-grade steel lever, plastic roller | 19 | B | **3SE5 000-0AA62** | | 1 | 1 unit | 102 | 0.025 |
| | High-grade steel lever, high-grade steel roller | 19 | B | **3SE5 000-0AA63** | | 1 | 1 unit | 102 | 0.040 |
| Rod actuator | **Twist levers, adjustable length** | | | | | | | | |
| | Metal lever, plastic roller | 19 | A | **3SE5 000-0AA50** | | 1 | 1 unit | 102 | 0.025 |
| | Metal lever, high-grade steel roller | 19 | B | **3SE5 000-0AA51** | | 1 | 1 unit | 102 | 0.035 |
| | Metal lever, plastic roller | 30 | B | **3SE5 000-0AA55** | | 1 | 1 unit | 102 | 0.025 |
| | Metal lever, plastic roller | 50 | B | **3SE5 000-0AA57** | | 1 | 1 unit | 102 | 0.025 |
| | Metal lever, rubber roller | 50 | B | **3SE5 000-0AA58** | | 1 | 1 unit | 102 | 0.040 |
| | High-grade steel lever, plastic roller | 19 | B | **3SE5 000-0AA52** | | 1 | 1 unit | 102 | 0.025 |
| | High-grade steel lever, high-grade steel roller | 19 | B | **3SE5 000-0AA53** | | 1 | 1 unit | 102 | 0.035 |
| | **Rod actuators** | | | | | | | | |
| | Aluminum rod, length 200 mm | 6 | B | **3SE5 000-0AA80** | | 1 | 1 unit | 102 | 0.070 |
| | Spring rod, length 200 mm | 6 | B | **3SE5 000-0AA81** | | 1 | 1 unit | 102 | 0.030 |
| | Plastic rod, length 200 mm | 6 | B | **3SE5 000-0AA82** | | 1 | 1 unit | 102 | 0.020 |

* You can order this quantity or a multiple thereof.

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## 3SE5, plastic enclosures
## Ambient temperature up to –40 °C

### Selection and ordering data

#### *Complete units*

2 or 3 contacts · Degree of protection IP65 or IP66/IP67 · Cable entry M20 × 1.5

| Version | Contacts | LEDs | DT | Complete units □ Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Complete units[1] • Enclosure width 31 mm** | | | | | | | | | |
| *Twist levers, type A acc. to EN 50047* | | | | | | | | | |
| **With high-grade steel lever 21 mm and plastic roller 19 mm** | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ A | **3SE5 232-0CK31-1AJ0** | | 1 | 1 unit | 102 | 0.085 |
| *Twist levers, adjustable length* | | | | | | | | | |
| **With high-grade steel lever with grid hole and plastic roller 19 mm** | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ A | **3SE5 232-0CK62-1AJ0** | | 1 | 1 unit | 102 | 0.100 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ B | **3SE5 232-0LK62-1AJ0** | | 1 | 1 unit | 102 | 0.120 |
| **Complete units[1] • Enclosure width 50 mm** | | | | | | | | | |
| *Twist levers* | | | | | | | | | |
| **With metal lever 21 mm and plastic roller 19 mm** | | | | | | | | | |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ➔ B | **3SE5 242-0HK21-1AJ0** | | 1 | 1 unit | 102 | 0.095 |
| *Twist levers, adjustable length* | | | | | | | | | |
| **With high-grade steel lever with grid hole and plastic roller 19 mm** | | | | | | | | | |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ➔ B | **3SE5 242-0HK62-1AJ0** | | 1 | 1 unit | 102 | 0.115 |

Twist lever

Twist lever, adjustable length

Twist lever, adjustable length

#### *Modular system*

2 or 3 contacts · Degree of protection IP65 or IP66/IP67 · Cable entry M20 × 1.5

| Version | Contacts | LEDs | DT | Modular system ◇ Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Basic switches • Enclosure width 31 mm (with rounded plunger[1])** | | | | | | | | | |
| **With teflon plunger** | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ B | **3SE5 232-0CC05-1AJ0** | | 1 | 1 unit | 102 | 0.065 |
| Slow-action contacts | 1 NO + 2 NC | -- | ➔ B | **3SE5 232-0KC05-1AJ0** | | 1 | 1 unit | 102 | 0.070 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ B | **3SE5 232-0LC05-1AJ0** | | 1 | 1 unit | 102 | 0.070 |
| **Basic switches • Enclosure width 50 mm (with rounded plunger[1])** | | | | | | | | | |
| **With teflon plunger** | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ B | **3SE5 242-0BC05-1AJ0** | | 1 | 1 unit | 102 | 0.065 |
| Snap-action contacts • Integrated[2] | 1 NO + 1 NC | -- | ➔ B | **3SE5 242-0HC05-1AJ0** | | 1 | 1 unit | 102 | 0.065 |

Basic switch

Basic switch

➔ Positive opening acc. to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

1) On the plastic version the basic switch is a complete unit with rounded plunger.

2) Subsequent replacement of contact blocks is not possible.

*Note: For selection aid, see page 8/19.*

* You can order this quantity or a multiple thereof.

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## 3SE5, plastic enclosures
## Ambient temperature up to –40 °C

| | Version | Diameter mm | DT | Modular system Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Operating mechanisms** | | | | | | | | | |
| Roller plunger | **Roller plunger, type C acc. to EN 50047** | | | | | | | | |
| | Plastic rollers | 10 | ➔ B | **3SE5 000-0AD03-1AJ0** | | 1 | 1 unit | 102 | 0.010 |
| Roller lever | **Roller lever, type E acc. to EN 50047** | | | | | | | | |
| | Metal lever, plastic roller | 13 | ➔ B | **3SE5 000-0AE10-1AJ0** | | 1 | 1 unit | 102 | 0.015 |
| | High-grade steel lever, plastic roller | 13 | ➔ B | **3SE5 000-0AE12-1AJ0** | | 1 | 1 unit | 102 | 0.015 |
| Angular roller lever | **Angular roller levers** | | | | | | | | |
| | Metal lever, plastic roller | 13 | ➔ B | **3SE5 000-0AF10-1AJ0** | | 1 | 1 unit | 102 | 0.015 |
| | High-grade steel lever, plastic roller | 13 | ➔ B | **3SE5 000-0AF12-1AJ0** | | 1 | 1 unit | 102 | 0.015 |
| **Twist actuators** | | | | | | | | | |
| Twist actuator | **Twist actuators**, plastic (without lever) | | | | | | | | |
| | Switching right and/or left, adjustable | | ➔ B | **3SE5 000-0AK00-1AJ0** | | 1 | 1 unit | 102 | 0.025 |
| Twist lever | ***Levers for twist actuators*** | | | | | | | | |
| | **Twist lever straight, 21 mm, type A acc. to EN 50047** | | | | | | | | |
| | Metal lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA21-1AJ0** | | 1 | 1 unit | 102 | 0.010 |
| | High-grade steel lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA31-1AJ0** | | 1 | 1 unit | 102 | 0.010 |
| Twist lever, adjustable length | **Twist levers, adjustable length, with grid holes** | | | | | | | | |
| | Metal lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA60-1AJ0** | | 1 | 1 unit | 102 | 0.025 |
| | High-grade steel lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA62-1AJ0** | | 1 | 1 unit | 102 | 0.025 |

* You can order this quantity or a multiple thereof.

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## 3SE2, plastic enclosures
## Enclosure width 40 mm according to EN 50041

### Selection and ordering data

*Complete units*

2 contacts · Degree of protection IP66 · Cable entry M20 × 1.5

| | Version | Contacts | | DT | Complete units | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Order No. / Price per PU | | | | kg |
| **Complete units[1] • Enclosure width 40 mm** | | | | | | | | | |
| Rounded plunger | *Rounded plungers, type B, acc. to EN 50041* | | | | | | | | |
| | **With plastic plunger** | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | ➔ | B | **3SE2 230-0C** | 1 | 1 unit | 102 | 0.115 |
| | Snap-action contacts | 1 NO + 1 NC | ➔ | B | **3SE2 230-1C** | 1 | 1 unit | 102 | 0.120 |
| | Slow-action contacts with make-before-break | 1 NO + 1 NC | ➔ | B | **3SE2 230-3C** | 1 | 1 unit | 102 | 0.115 |
| | Slow-action contacts | 2 NO | | B | **3SE2 230-7C** | 1 | 1 unit | 102 | 0.125 |
| | Slow-action contacts | 2 NC | ➔ | B | **3SE2 230-6C** | 1 | 1 unit | 102 | 0.115 |
| | Snap-action contacts | 2 NC | ➔ | B | **3SE2 230-8CV00** | 1 | 1 unit | 102 | 0.130 |
| NSC 00091 Roller plunger | *Roller levers, type C, acc. to EN 50041* | | | | | | | | |
| | **With plastic roller 13 mm** | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | ➔ | B | **3SE2 230-0D** | 1 | 1 unit | 102 | 0.120 |
| | Snap-action contacts | 1 NO + 1 NC | ➔ | B | **3SE2 230-1D** | 1 | 1 unit | 102 | 0.120 |
| | Slow-action contacts with make-before-break | 1 NO + 1 NC | ➔ | B | **3SE2 230-3D** | 1 | 1 unit | 102 | 0.130 |
| | Slow-action contacts | 2 NO | | B | **3SE2 230-7D** | 1 | 1 unit | 102 | 0.135 |
| | Slow-action contacts | 2 NC | ➔ | B | **3SE2 230-6D** | 1 | 1 unit | 102 | 0.120 |
| | Snap-action contacts | 2 NC | ➔ | B | **3SE2 230-8DV00** | 1 | 1 unit | 102 | 0.120 |
| NSC00092 Roller lever | *Roller levers* | | | | | | | | |
| | **With metal lever and plastic roller 22 mm** | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | ➔ | B | **3SE2 230-0E** | 1 | 1 unit | 102 | 0.130 |
| | Snap-action contacts | 1 NO + 1 NC | ➔ | B | **3SE2 230-1E** | 1 | 1 unit | 102 | 0.130 |
| | Slow-action contacts with make-before-break | 1 NO + 1 NC | ➔ | B | **3SE2 230-3E** | 1 | 1 unit | 102 | 0.130 |
| | Slow-action contacts | 2 NO | | B | **3SE2 230-7E** | 1 | 1 unit | 102 | 0.130 |
| | Slow-action contacts | 2 NC | ➔ | B | **3SE2 230-6E** | 1 | 1 unit | 102 | 0.130 |
| | Snap-action contacts | 2 NC | ➔ | B | **3SE2 230-8EV00** | 1 | 1 unit | 102 | 0.130 |
| NSC00093 Angular roller lever | *Angular roller levers* | | | | | | | | |
| | **With metal lever and plastic roller 22 mm** | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | ➔ | B | **3SE2 230-0F** | 1 | 1 unit | 102 | 0.130 |
| | Snap-action contacts | 1 NO + 1 NC | ➔ | B | **3SE2 230-1F** | 1 | 1 unit | 102 | 0.132 |
| | Slow-action contacts with make-before-break | 1 NO + 1 NC | ➔ | B | **3SE2 230-3F** | 1 | 1 unit | 102 | 0.135 |
| | Slow-action contacts | 2 NO | | C | **3SE2 230-7F** | 1 | 1 unit | 102 | 0.140 |
| | Slow-action contacts | 2 NC | ➔ | B | **3SE2 230-6F** | 1 | 1 unit | 102 | 0.135 |
| | Snap-action contacts | 2 NC | ➔ | B | **3SE2 230-8FV00** | 1 | 1 unit | 102 | 0.150 |
| NSC 00015 Spring rod | *Spring rod* | | | | | | | | |
| | **Length 139.5 mm, with plastic plunger 50 mm** | | | | | | | | |
| | Snap-action contacts | 1 NO + 1 NC | | B | **3SE2 230-1R** | 1 | 1 unit | 102 | 0.150 |
| | Snap-action contacts | 2 NC | | B | **3SE2 230-8RV00** | 1 | 1 unit | 102 | 0.160 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

[1] The actuators can be subsequently replaced with other versions (see "Accessories", page 8/32).



* You can order this quantity or a multiple thereof.

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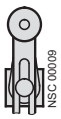
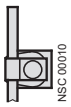
## 3SE2, plastic enclosures
## Enclosure width 40 mm according to EN 50041

2 contacts · Degree of protection IP66 · Cable entry M20 × 1.5

| | Version | Contacts | | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **Complete units[1] • Enclosure width 40 mm** | | | | | | | | | | |
| NSC 00094 Twist lever | ***Twist levers, type A acc. to EN 50041*** | | | | | | | | | |
| | **With metal lever and plastic roller 19 mm** | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | ➔ | B | **3SE2 230-0GW** | | 1 | 1 unit | 102 | 0.155 |
| | Snap-action contacts | 1 NO + 1 NC | ➔ | B | **3SE2 230-1GW** | | 1 | 1 unit | 102 | 0.155 |
| | Slow-action contacts with make-before-break | 1 NO + 1 NC | ➔ | B | **3SE2 230-3GW** | | 1 | 1 unit | 102 | 0.150 |
| | Slow-action contacts | 2 NO | | B | **3SE2 230-7GW** | | 1 | 1 unit | 102 | 0.150 |
| | Slow-action contacts | 2 NC | ➔ | C | **3SE2 230-6GW** | | 1 | 1 unit | 102 | 0.145 |
| | Snap-action contacts | 2 NC | ➔ | B | **3SE2 230-8GW00** | | 1 | 1 unit | 102 | 0.180 |
|  NSC 00009 Twist lever, adjustable length | ***Twist levers, adjustable length*** | | | | | | | | | |
| | **With metal lever and plastic roller 19 mm** | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | | B | **3SE2 230-0U** | | 1 | 1 unit | 102 | 0.160 |
| | Snap-action contacts | 1 NO + 1 NC | | B | **3SE2 230-1U** | | 1 | 1 unit | 102 | 0.160 |
| | Slow-action contacts | 2 NO | | B | **3SE2 230-7U** | | 1 | 1 unit | 102 | 0.160 |
| | Slow-action contacts | 2 NC | | C | **3SE2 230-6U** | | 1 | 1 unit | 102 | 0.160 |
| | Snap-action contacts | 2 NC | | B | **3SE2 230-8UW00** | | 1 | 1 unit | 102 | 0.170 |
|  NSC 00010 Rod actuator | ***Rod actuators, type D, acc. to EN 50041*** | | | | | | | | | |
| | **With plastic rod, 200 mm** | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | | B | **3SE2 230-0W** | | 1 | 1 unit | 102 | 0.165 |
| | Snap-action contacts | 1 NO + 1 NC | | B | **3SE2 230-1W** | | 1 | 1 unit | 102 | 0.160 |
| | Slow-action contacts | 2 NO | | B | **3SE2 230-7W** | | 1 | 1 unit | 102 | 0.160 |
| | Slow-action contacts | 2 NC | | B | **3SE2 230-6W** | | 1 | 1 unit | 102 | 0.160 |
| | Snap-action contacts | 2 NC | | B | **3SE2 230-8WW00** | | 1 | 1 unit | 102 | 0.195 |
| | **With aluminum rod, 200 mm** | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | | C | **3SE2 230-0V** | | 1 | 1 unit | 102 | 0.190 |
| | Snap-action contacts | 1 NO + 1 NC | | B | **3SE2 230-1V** | | 1 | 1 unit | 102 | 0.170 |
| | Slow-action contacts | 2 NO | | B | **3SE2 230-7V** | | 1 | 1 unit | 102 | 0.170 |
| | Slow-action contacts | 2 NC | | B | **3SE2 230-6V** | | 1 | 1 unit | 102 | 0.170 |
| | Snap-action contacts | 2 NC | | B | **3SE2 230-8VW00** | | 1 | 1 unit | 102 | 0.200 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

1) The actuators can be subsequently replaced with other versions (see "Accessories", page 8/32).

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* You can order this quantity or a multiple thereof.

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## 3SE2, plastic enclosures
## Enclosure width 40 mm according to EN 50041

***Basic switches without operating mechanism***

2 contacts · Degree of protection IP66 · Cable entry M20 × 1.5

| | Version | Contacts | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Basic switches • Enclosure width 40 mm** | | | | | | | | | |
| Basic switch | **With plastic plunger** | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | B | **3SE2 230-0A** | | 1 | 1 unit | 102 | 0.095 |
| | Snap-action contacts | 1 NO + 1 NC | B | **3SE2 230-1A** | | 1 | 1 unit | 102 | 0.100 |
| | Slow-action contacts with make-before-break | 1 NO + 1 NC | B | **3SE2 230-3A** | | 1 | 1 unit | 102 | 0.095 |
| | Slow-action contacts | 2 NO | B | **3SE2 230-7A** | | 1 | 1 unit | 102 | 0.095 |
| | Slow-action contacts | 2 NC | B | **3SE2 230-6A** | | 1 | 1 unit | 102 | 0.095 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

For operating mechanisms for basic switches see Accessories.

## Accessories

The operating mechanisms of the position switches in series 3SE2 230 can be subsequently replaced with other versions.

| | Actuator with fixing screws and seal | Can be used for position switches | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Complete actuators** | | | | | | | | | |
| | **Rounded plungers** | 3SE2 230–.C | ➔ B | **3SX3 160** | | 1 | 1 unit | 102 | 0.020 |
| | **Roller plungers** | 3SE2 230–.D | | | | | | | |
| | • With plastic roller, Ø 13 mm | | ➔ B | **3SX3 161** | | 1 | 1 unit | 102 | 0.025 |
| | • With high-grade steel roller, Ø 13 mm | | ➔ B | **3SX3 262** | | 1 | 1 unit | 102 | 0.010 |
| | **Roller levers** | 3SE2 230–.E | | | | | | | |
| | • With plastic roller, Ø 22 mm | | ➔ ▶ | **3SX3 164** | | 1 | 1 unit | 102 | 0.035 |
| | • With high-grade steel roller, Ø 22 mm | | | – | | | | | |
| | **Angular roller levers** | 3SE2 230–.F | | | | | | | |
| | • With plastic roller, Ø 22 mm | | ➔ B | **3SX3 168** | | 1 | 1 unit | 102 | 0.035 |
| | • With high-grade steel roller, Ø 22 mm | | | – | | | | | |
| | **Spring rods**[1] | 3SE2 230–.R | | | | | | | |
| | • Spring 50 mm, plastic plunger 50 mm | | B | **3SX3 210** | | 1 | 1 unit | 102 | 0.050 |
| | • Spring 50 mm, high-grade steel plunger 50 mm | | B | **3SX3 281** | | 1 | 1 unit | 102 | 0.060 |
| | • Spring 150 mm, plastic plunger 50 mm | | B | **3SX3 283** | | 1 | 1 unit | 102 | 0.070 |
| | • Spring 150 mm, metal plunger 50 mm | | B | **3SX3 311** | | 1 | 1 unit | 102 | 0.080 |

➔ Positively driven actuator, necessary in safety circuits.

[1] Only for snap-action contacts.

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* You can order this quantity or a multiple thereof.

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## 3SE2, plastic enclosures
## Enclosure width 40 mm according to EN 50041

| Actuator with fixing screws and seal | Can be used for position switches | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|
| **Complete actuators** | | | | | | | | |
| **Twist levers** | | | | | | | | |
| • Finely adjustable from 10° to 10°, (supplied with plunger) | 3SE2 230–.GW | | | | | | | |
| - With plastic roller, Ø 19 mm | | ➔ C | **3SX3 167** | | 1 | 1 unit | 102 | 0.050 |
| • Adjustable length, finely adjustable from 10° to 10°, (supplied with plunger) | 3SE2 230–.U | | | | | | | |
| - With plastic roller, Ø 19 mm | | B | **3SX3 163** | | 1 | 1 unit | 102 | 0.060 |
| **Rod actuators** Adjustable length | | | | | | | | |
| • With plastic rod, 200 mm (supplied with plunger) | 3SE2 230–.W | B | **3SX3 166** | | 1 | 1 unit | 102 | 0.060 |
| • With aluminum rod, 200 mm | 3SE2 230–.V | B | **3SX3 165** | | 1 | 1 unit | 102 | 0.070 |
| **Actuators with separate twist actuator** | | | | | | | | |
| **Twist actuators** (without lever) | 3SE2 230–.GW, 3SE2 230–.U, 3SE2 230–.V, 3SE2 230–.W | B | **3SX3 305** | | 1 | 1 unit | 102 | 0.030 |
| 3SX3 212 **Twist levers, 30 mm long** For round spindle | 3SE2 ...–.GW | | | | | | | |
| • With plastic roller, Ø 19 mm | | ➔ ▶ | **3SX3 212** | | 1 | 1 unit | 102 | 0.020 |
| • With high-grade steel roller, Ø 19 mm | | ➔ B | **3SX3 265** | | 1 | 1 unit | 102 | 0.025 |
| • With ball bearing and roller, Ø 19 mm | | ➔ B | **3SX3 320** | | 1 | 1 unit | 102 | 0.025 |
| 3SX3 301 • With plastic roller, Ø 30 mm | | ➔ B | **3SX3 278** | | 1 | 1 unit | 102 | 0.020 |
| • With plastic roller, Ø 50 mm | | ➔ B | **3SX3 301** | | 1 | 1 unit | 102 | 0.020 |
| • With rubber roller, Ø 50 mm | | ➔ B | **3SX3 280** | | 1 | 1 unit | 102 | 0.020 |
| 3SX3 304 **Twist levers** | | | | | | | | |
| • Adjustable length | 3SE2 230–.U | | | | | | | |
| - Plastic roller, Ø 19 mm | | ▶ | **3SX3 213** | | 1 | 1 unit | 102 | 0.024 |
| - With high-grade steel roller, Ø 19 mm | | B | **3SX3 268** | | 1 | 1 unit | 102 | 0.030 |
| - With plastic roller, Ø 30 mm | | B | **3SX3 302** | | 1 | 1 unit | 102 | 0.025 |
| - With rubber roller, Ø 50 mm | | B | **3SX3 304** | | 1 | 1 unit | 102 | 0.020 |
| • Adjustable length, with grid hole, with plastic roller, Ø 19 mm | | ➔ B | **3SX3 321** | | 1 | 1 unit | 102 | 0.025 |
| 3SX3 215 **Rod actuators with holder** | | | | | | | | |
| • Plastic rod, 200 mm | 3SE2 230–.W | ▶ | **3SX3 215** | | 1 | 1 unit | 102 | 0.031 |
| • Aluminum rod, 200 mm | 3SE2 230–.V | ▶ | **3SX3 214** | | 1 | 1 unit | 102 | 0.032 |
| **Rod actuators** (without holder) | | | | | | | | |
| • Plastic rod, 200 mm | 3SE2 230–.W | ▶ | **3SX3 000** | | 1 | 1 unit | 102 | 0.008 |
| • Aluminum rod, 200 mm | 3SE2 230–.V | B | **3SX3 001** | | 1 | 1 unit | 102 | 0.016 |

➔ Positively driven actuator, necessary in safety circuits.

* You can order this quantity or a multiple thereof.

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## 3SE5, metal enclosures
## Enclosure width 40 mm according to EN 50041

### Selection and ordering data

*Complete units*

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

| Version | Contacts | LEDs | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Complete units[1] • Enclosure width 40 mm** | | | | | | | | | |
| *Rounded plungers, type B acc. to EN 50041* | | | | | | | | | |
| **With high-grade steel plungers, with 3 mm overtravel** | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ⊖ B | **3SE5 112-0BC02** | | 1 | 1 unit | 102 | 0.290 |
| Snap-action contacts | 1 NO + 1 NC | -- | ⊖ ▶ | **3SE5 112-0CC02** | | 1 | 1 unit | 102 | 0.290 |
| Slow-action contacts | 1 NO + 2 NC | -- | ⊖ B | **3SE5 112-0KC02** | | 1 | 1 unit | 102 | 0.300 |
| Snap-action contacts | 1 NO + 2 NC | -- | ⊖ B | **3SE5 112-0LC02** | | 1 | 1 unit | 102 | 0.300 |
| *Roller plungers, type C acc. to EN 50041* | | | | | | | | | |
| **With high-grade steel roller 13 mm, with 3 mm overtravel** | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ⊖ B | **3SE5 112-0BD02** | | 1 | 1 unit | 102 | 0.310 |
| Snap-action contacts | 1 NO + 1 NC | -- | ⊖ ▶ | **3SE5 112-0CD02** | | 1 | 1 unit | 102 | 0.310 |
| Slow-action contacts | 1 NO + 2 NC | -- | ⊖ B | **3SE5 112-0KD02** | | 1 | 1 unit | 102 | 0.320 |
| Snap-action contacts | 1 NO + 2 NC | -- | ⊖ B | **3SE5 112-0LD02** | | 1 | 1 unit | 102 | 0.320 |
| **With M12 connector socket, 5-pole** (125 V, 4 A) **and 2 LEDs** | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | 24 V DC | ⊖ C | **3SE5 114-1CD02-1AF3** | | 1 | 1 unit | 102 | 0.320 |
| *Roller levers* | | | | | | | | | |
| **With metal lever and plastic roller 22 mm** | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ⊖ B | **3SE5 112-0BE01** | | 1 | 1 unit | 102 | 0.300 |
| Snap-action contacts | 1 NO + 1 NC | -- | ⊖ ▶ | **3SE5 112-0CE01** | | 1 | 1 unit | 102 | 0.300 |
| Slow-action contacts | 1 NO + 2 NC | -- | ⊖ B | **3SE5 112-0KE01** | | 1 | 1 unit | 102 | 0.310 |
| Snap-action contacts | 1 NO + 2 NC | -- | ⊖ B | **3SE5 112-0LE01** | | 1 | 1 unit | 102 | 0.310 |
| *Angular roller levers* | | | | | | | | | |
| **With metal lever and plastic roller 22 mm** | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ⊖ B | **3SE5 112-0BF01** | | 1 | 1 unit | 102 | 0.310 |
| Snap-action contacts | 1 NO + 1 NC | -- | ⊖ A | **3SE5 112-0CF01** | | 1 | 1 unit | 102 | 0.310 |
| Snap-action contacts | 1 NO + 2 NC | -- | ⊖ B | **3SE5 112-0LF01** | | 1 | 1 unit | 102 | 0.320 |
| *Spring rod* | | | | | | | | | |
| **Length 142.5 mm, with plastic plunger 50 mm** | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | ▶ | **3SE5 112-0CR01** | | 1 | 1 unit | 102 | 0.315 |

Rounded plunger

Roller plunger

Roller lever

Angular roller lever

Spring rod

⊖ Positive opening acc. to IEC 60947-5-1, Appendix K.

[1] Popular versions.

* You can order this quantity or a multiple thereof.

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## 3SE5, metal enclosures
## Enclosure width 40 mm according to EN 50041

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

| Version | Contacts | LEDs | | DT | Complete units<br>Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **Complete units[1] • Enclosure width 40 mm** | | | | | | | | | | |
| ***Twist levers, type A acc. to EN 50041*** | | | | | | | | | | |
| **With metal lever 27 mm and plastic roller 19 mm** | | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 112-0BH01** | | 1 | 1 unit | 102 | 0.345 |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ | ▶ | **3SE5 112-0CH01** | | 1 | 1 unit | 102 | 0.345 |
| Slow-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 112-0KH01** | | 1 | 1 unit | 102 | 0.355 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 112-0LH01** | | 1 | 1 unit | 102 | 0.355 |
| **With M12 connector socket, 5-pole** (125 V, 4 A) | | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ | A | **3SE5 114-0CH01-1AC5** | | 1 | 1 unit | 102 | 0.350 |
| **With M12 connector socket, 5-pole** (125 V, 4 A) **and 2 LEDs** | | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | 24 V DC | ➔ | C | **3SE5 114-1CH01-1AF3** | | 1 | 1 unit | 102 | 0.355 |
| **With metal lever 27 mm and high-grade steel roller 19 mm** | | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 112-0BH02** | | 1 | 1 unit | 102 | 0.355 |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ | A | **3SE5 112-0CH02** | | 1 | 1 unit | 102 | 0.355 |
| **With M12 connector socket, 5-pole** (125 V, 4 A) **and 2 LEDs** | | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ | C | **3SE5 114-1CH02-1AF3** | | 1 | 1 unit | 102 | 0.375 |
| **With metal lever 30 mm and plastic roller 19 mm** | | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ | ▶ | **3SE5 112-0CH24** | | 1 | 1 unit | 102 | 0.350 |
| ***Twist levers, adjustable length*** | | | | | | | | | | |
| **With metal lever with grid hole and plastic roller 19 mm** | | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 112-0BH60** | | 1 | 1 unit | 102 | 0.360 |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ | ▶ | **3SE5 112-0CH60** | | 1 | 1 unit | 102 | 0.360 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 112-0LH60** | | 1 | 1 unit | 102 | 0.370 |
| **With metal lever and plastic roller 19 mm** | | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | | B | **3SE5 112-0BH50** | | 1 | 1 unit | 102 | 0.360 |
| Snap-action contacts | 1 NO + 1 NC | -- | | ▶ | **3SE5 112-0CH50** | | 1 | 1 unit | 102 | 0.360 |
| Snap-action contacts | 1 NO + 2 NC | -- | | B | **3SE5 112-0LH50** | | 1 | 1 unit | 102 | 0.370 |
| **With M12 connector socket, 8-pole** (30 V, 2 A) **and 2 LEDs** | | | | | | | | | | |
| Snap-action contacts | 1 NO + 2 NC | 24 V DC | ➔ | C | **3SE5 114-1LH50-1AD4** | | 1 | 1 unit | 102 | 0.310 |
| **With metal lever and high-grade steel roller 19 mm** | | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | | B | **3SE5 112-0CH51** | | 1 | 1 unit | 102 | 0.370 |
| ***Fork levers, latching*** | | | | | | | | | | |
| **With metal lever and 2 plastic rollers 19 mm** | | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 112-0CT11** | | 1 | 1 unit | 102 | 0.360 |
| ***Rod actuators, type D, acc. to EN 50041*** | | | | | | | | | | |
| **With aluminum rod, length 200 mm** | | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | | ▶ | **3SE5 112-0CH80** | | 1 | 1 unit | 102 | 0.300 |
| **With plastic rod, length 200 mm** | | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | | B | **3SE5 112-0CH82** | | 1 | 1 unit | 102 | 0.300 |

Twist lever

Twist lever, adjustable length, with grid holes

Twist lever, adjustable length

Fork lever

Rod actuator

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

[1] Popular versions.

*Note: If the device you require is not available as a complete unit, see "Modular system" on the next page.*

*** You can order this quantity or a multiple thereof.**

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## 3SE5, metal enclosures
## Enclosure width 40 mm according to EN 50041

*Modular system*

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

| | Version | Contacts | LEDs | | DT | Modular system Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Basic switches • Enclosure width 40 mm** | | | | | | | | | | | |
| Basic switch | **With M20 × 1.5 connecting thread** | | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 112-0BA00** | | 1 | 1 unit | 102 | 0.260 |
| | Snap-action contacts | 1 NO + 1 NC | -- | ➔ | A | **3SE5 112-0CA00** | | 1 | 1 unit | 102 | 0.260 |
| | • Gold-plated contacts | | | ➔ | D | **3SE5 112-0CA00-1AC1** | | 1 | 1 unit | 102 | 0.260 |
| | Slow-action contacts | 1 NO + 2 NC | -- | ➔ | A | **3SE5 112-0KA00** | | 1 | 1 unit | 102 | 0.270 |
| | Snap-action contacts | 1 NO + 2 NC | -- | ➔ | A | **3SE5 112-0LA00** | | 1 | 1 unit | 102 | 0.270 |
| | Slow-action contacts with make-before-break | 1 NO + 2 NC | -- | ➔ | B | **3SE5 112-0MA00** | | 1 | 1 unit | 102 | 0.270 |
| | Slow-action contacts | 2 NO + 1 NC | -- | ➔ | B | **3SE5 112-0PA00** | | 1 | 1 unit | 102 | 0.270 |
| With increased corrosion protection | **With increased corrosion protection**[1] | | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 112-0BA00-1CA0** | | 1 | 1 unit | 102 | 0.260 |
| | Snap-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 112-0CA00-1CA0** | | 1 | 1 unit | 102 | 0.260 |
| | Slow-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 112-0KA00-1CA0** | | 1 | 1 unit | 102 | 0.270 |
| | Snap-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 112-0LA00-1CA0** | | 1 | 1 unit | 102 | 0.270 |
| | Slow-action contacts with make-before-break | 1 NO + 2 NC | -- | ➔ | B | **3SE5 112-0MA00-1CA0** | | 1 | 1 unit | 102 | 0.270 |
| | Slow-action contacts | 2 NO + 1 NC | -- | ➔ | B | **3SE5 112-0PA00-1CA0** | | 1 | 1 unit | 102 | 0.270 |
| With M12 socket | **With M12 connector socket, 5-pole** (125 V, 4 A) | | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 114-0BA00-1AC5** | | 1 | 1 unit | 102 | 0.270 |
| | Snap-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 114-0CA00-1AC5** | | 1 | 1 unit | 102 | 0.270 |
| | Slow-action contacts | 2 NC | -- | ➔ | B | **3SE5 114-0KA00-1AE1** | | 1 | 1 unit | 102 | 0.280 |
| | Snap-action contacts | 2 NC | -- | ➔ | B | **3SE5 114-0LA00-1AE1** | | 1 | 1 unit | 102 | 0.280 |
| with plug, 6-pole + PE | **With connector socket, 6-pole + PE** (250 V, 10 A) | | | | | | | | | | |
| | Slow-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 115-0KA00-1AD1** | | 1 | 1 unit | 102 | 0.280 |
| | Snap-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 115-0LA00-1AD1** | | 1 | 1 unit | 102 | 0.280 |
| | **With connector socket, 6-pole + PE** (250 V, 10 A) **and quick-release device** | | | | | | | | | | |
| | Snap-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 115-0CA00-1AD0** | | 1 | 1 unit | 102 | 0.350 |
| With 2 LEDs | **With 2 LEDs, yellow/green** | | | | | | | | | | |
| | Slow-action contacts | 1 NO + 2 NC | 24 V DC | ➔ | B | **3SE5 112-1KA00** | | 1 | 1 unit | 102 | 0.280 |
| | Snap-action contacts | 1 NO + 2 NC | 24 V DC | ➔ | B | **3SE5 112-1LA00** | | 1 | 1 unit | 102 | 0.280 |
| | Slow-action contacts | 1 NO + 2 NC | 230 V AC | ➔ | C | **3SE5 112-3KA00** | | 1 | 1 unit | 102 | 0.280 |
| | Snap-action contacts | 1 NO + 2 NC | 230 V AC | ➔ | C | **3SE5 112-3LA00** | | 1 | 1 unit | 102 | 0.280 |
| With M12 socket and 2 LEDs | **With M12 connector socket, 5-pole** (125 V, 4 A) **and 2 LEDs** | | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | 24 V DC | ➔ | B | **3SE5 114-1BA00-1AF3** | | 1 | 1 unit | 102 | 0.280 |
| | Snap-action contacts | 1 NO + 1 NC | 24 V DC | ➔ | C | **3SE5 114-1CA00-1AF3** | | 1 | 1 unit | 102 | 0.280 |
| | **With M12 connector socket, 8-pole** (30 V, 2 A) **and 2 LEDs** | | | | | | | | | | |
| | Snap-action contacts | 1 NO + 2 NC | 24 V DC | ➔ | C | **3SE5 114-1LA00-1AD4** | | 1 | 1 unit | 102 | 0.310 |
| With socket, 6-pole + PE, and 2 LEDs | **With connector socket, 6-pole + PE** (10 A), **and 2 LEDs** | | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | 24 V DC | ➔ | B | **3SE5 115-1BA00-1AF2** | | 1 | 1 unit | 102 | 0.290 |
| | Snap-action contacts | 1 NO + 1 NC | 24 V DC | ➔ | B | **3SE5 115-1CA00-1AF2** | | 1 | 1 unit | 102 | 0.290 |
| | Snap-action contacts | 2 NC | 24 V DC | ➔ | B | **3SE5 115-1LA00-1AD2** | | 1 | 1 unit | 102 | 0.300 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

[1] Use corresponding high-grade steel lever.

*Note: For selection aid, see page 8/19.*

* You can order this quantity or a multiple thereof.

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## 3SE5, metal enclosures
## Enclosure width 40 mm according to EN 50041

| Version | Diameter mm | DT | Modular system Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|
| **Operating mechanisms** | | | | | | | | |
| Plungers | | | | | | | | |
| **Rounded plungers, type B acc. to EN 50041** | | | | | | | | |
| High-grade steel plungers, with 3 mm overtravel | | ➔ B | **3SE5 000-0AC02** | | 1 | 1 unit | 102 | 0.030 |
| **Roller plunger, type C acc. to EN 50041** | | | | | | | | |
| High-grade steel roller, with 3 mm overtravel | 13 | ➔ B | **3SE5 000-0AD02** | | 1 | 1 unit | 102 | 0.050 |
| Roller lever | | | | | | | | |
| **Roller levers** | | | | | | | | |
| Metal lever, plastic roller | 22 | ➔ A | **3SE5 000-0AE01** | | 1 | 1 unit | 102 | 0.045 |
| Metal lever, high-grade steel roller | 22 | ➔ B | **3SE5 000-0AE02** | | 1 | 1 unit | 102 | 0.065 |
| High-grade steel lever, plastic roller | 22 | ➔ B | **3SE5 000-0AE03** | | 1 | 1 unit | 102 | 0.040 |
| High-grade steel lever, high-grade steel roller | 22 | ➔ B | **3SE5 000-0AE04** | | 1 | 1 unit | 102 | 0.065 |
| Angular roller lev. | | | | | | | | |
| **Angular roller levers** | | | | | | | | |
| Metal lever, plastic roller | 22 | ➔ A | **3SE5 000-0AF01** | | 1 | 1 unit | 102 | 0.050 |
| Metal lever, high-grade steel roller | 22 | ➔ B | **3SE5 000-0AF02** | | 1 | 1 unit | 102 | 0.075 |
| High-grade steel lever, plastic roller | 22 | ➔ B | **3SE5 000-0AF03** | | 1 | 1 unit | 102 | 0.050 |
| High-grade steel lever, high-grade steel roller | 22 | ➔ B | **3SE5 000-0AF04** | | 1 | 1 unit | 102 | 0.075 |
| Spring rod | | | | | | | | |
| **Spring rod** (for switches with snap-action contacts only) | | | | | | | | |
| Plastic plunger: | | | | | | | | |
| • Length 142.5 mm (spring 50 mm, plunger 50 mm) | | B | **3SE5 000-0AR01** | | 1 | 1 unit | 102 | 0.060 |
| • Length 76 mm (spring 23.5 mm, plunger 10 mm) | | B | **3SE5 000-0AR03** | | 1 | 1 unit | 102 | 0.020 |
| • Length 242.5 mm (spring 150 mm, plunger 50 mm) | | B | **3SE5 000-0AR04** | | 1 | 1 unit | 102 | 0.040 |
| High-grade steel plunger: | | | | | | | | |
| • Length 142.5 mm (spring 50 mm, plunger 50 mm) | | B | **3SE5 000-0AR02** | | 1 | 1 unit | 102 | 0.040 |
| **Twist actuators** | | | | | | | | |
| Twist actuator | | | | | | | | |
| **Twist actuators**, metal (without lever) | | | | | | | | |
| • For twist levers and rod actuators, switching right and/or left, adjustable | | ➔ A | **3SE5 000-0AH00** | | 1 | 1 unit | 102 | 0.070 |
| • For fork levers, latching | | ➔ B | **3SE5 000-0AT10** | | 1 | 1 unit | 102 | 0.070 |
| ***Levers for twist actuators*** | | | | | | | | |
| Twist lever | | | | | | | | |
| **Twist levers, offset, type A acc. to EN 50041** | | | | | | | | |
| Metal lever 27 mm, plastic roller | 19 | ➔ A | **3SE5 000-0AA01** | | 1 | 1 unit | 102 | 0.015 |
| Metal lever 27 mm, high-grade steel roller | 19 | ➔ A | **3SE5 000-0AA02** | | 1 | 1 unit | 102 | 0.035 |
| Metal lever 27 mm, roller with ball bearing | 19 | ➔ B | **3SE5 000-0AA03** | | 1 | 1 unit | 102 | 0.020 |
| Metal lever 27 mm, 2 plastic rollers | 19 | ➔ B | **3SE5 000-0AA04** | | 1 | 1 unit | 102 | 0.015 |
| Metal lever 27 mm, plastic roller | 30 | ➔ B | **3SE5 000-0AA05** | | 1 | 1 unit | 102 | 0.015 |
| Metal lever 27 mm, rubber roller | 50 | ➔ B | **3SE5 000-0AA08** | | 1 | 1 unit | 102 | 0.030 |
| High-grade steel lever 27 mm, plastic roller | 19 | ➔ B | **3SE5 000-0AA11** | | 1 | 1 unit | 102 | 0.015 |
| High-grade steel lever 27 mm, high-grade steel roller | 19 | ➔ B | **3SE5 000-0AA12** | | 1 | 1 unit | 102 | 0.025 |
| Metal lever 35 mm, plastic roller | 19 | ➔ B | **3SE5 000-0AA15** | | 1 | 1 unit | 102 | 0.050 |
| Twist lever, adjustable length | | | | | | | | |
| **Twist levers 30 mm, straight**[1] | | | | | | | | |
| Metal lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA24** | | 1 | 1 unit | 102 | 0.020 |
| **Twist levers, adjustable length, with grid holes** | | | | | | | | |
| Metal lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA60** | | 1 | 1 unit | 102 | 0.025 |
| Metal lever, high-grade steel roller | 19 | ➔ B | **3SE5 000-0AA61** | | 1 | 1 unit | 102 | 0.040 |
| Metal lever, rubber roller | 50 | ➔ B | **3SE5 000-0AA68** | | 1 | 1 unit | 102 | 0.045 |
| High-grade steel lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA62** | | 1 | 1 unit | 102 | 0.025 |
| High-grade steel lever, high-grade steel roller | 19 | ➔ B | **3SE5 000-0AA63** | | 1 | 1 unit | 102 | 0.040 |
| Fork lever | | | | | | | | |
| **Twist levers, adjustable length** | | | | | | | | |
| Metal lever, plastic roller | 19 | A | **3SE5 000-0AA50** | | 1 | 1 unit | 102 | 0.025 |
| Metal lever, high-grade steel roller | 19 | B | **3SE5 000-0AA51** | | 1 | 1 unit | 102 | 0.035 |
| Metal lever, plastic roller | 30 | B | **3SE5 000-0AA55** | | 1 | 1 unit | 102 | 0.025 |
| Metal lever, rubber roller | 50 | B | **3SE5 000-0AA58** | | 1 | 1 unit | 102 | 0.040 |
| High-grade steel lever, plastic roller | 19 | B | **3SE5 000-0AA52** | | 1 | 1 unit | 102 | 0.025 |
| High-grade steel lever, high-grade steel roller | 19 | B | **3SE5 000-0AA53** | | 1 | 1 unit | 102 | 0.035 |
| Rod actuator | | | | | | | | |
| **Fork lever** (for switches with snap-action contacts only) | | | | | | | | |
| 2 metal levers, 2 plastic rollers | 19 | ➔ B | **3SE5 000-0AT01** | | 1 | 1 unit | 102 | 0.050 |
| 2 metal levers, 2 high-grade steel rollers | 19 | ➔ B | **3SE5 000-0AT02** | | 1 | 1 unit | 102 | 0.050 |
| 2 high-grade steel levers, 2 plastic rollers | 19 | ➔ B | **3SE5 000-0AT03** | | 1 | 1 unit | 102 | 0.050 |
| **Rod actuators, type D acc. to EN 50041** | | | | | | | | |
| Aluminum rod, length 200 mm | 6 | B | **3SE5 000-0AA80** | | 1 | 1 unit | 102 | 0.070 |
| Spring rod, length 200 mm | 6 | B | **3SE5 000-0AA81** | | 1 | 1 unit | 102 | 0.030 |
| Plastic rod, length 200 mm | 6 | B | **3SE5 000-0AA82** | | 1 | 1 unit | 102 | 0.020 |

➔ Positively driven actuator, necessary in safety circuits.

[1] Can be mounted on bead (180°).

*** You can order this quantity or a multiple thereof.**

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## 3SE5, metal enclosures
## Enclosure width 56 mm

### Selection and ordering data

*Complete units*

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry 3 × (M20 × 1.5)

| Version | Contacts | LEDs | | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **Complete units[1] • Enclosure width 56 mm** | | | | | | | | | | |
| Rounded plunger | | | | | | | | | | |
| ***Rounded plungers*** | | | | | | | | | | |
| **With high-grade steel plungers, with 3 mm overtravel** | | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 122-0BC02** | | 1 | 1 unit | 102 | 0.355 |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ | ▶ | **3SE5 122-0CC02** | | 1 | 1 unit | 102 | 0.355 |
| Slow-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 122-0KC02** | | 1 | 1 unit | 102 | 0.365 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 122-0LC02** | | 1 | 1 unit | 102 | 0.365 |
| Roller plunger | | | | | | | | | | |
| ***Roller plungers*** | | | | | | | | | | |
| **With high-grade steel roller 13 mm, with 3 mm overtravel** | | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 122-0BD02** | | 1 | 1 unit | 102 | 0.375 |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ | A | **3SE5 122-0CD02** | | 1 | 1 unit | 102 | 0.375 |
| Slow-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 122-0KD02** | | 1 | 1 unit | 102 | 0.385 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 122-0LD02** | | 1 | 1 unit | 102 | 0.385 |
| Roller lever | | | | | | | | | | |
| ***Roller levers*** | | | | | | | | | | |
| **With metal lever and plastic roller 22 mm** | | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 122-0BE01** | | 1 | 1 unit | 102 | 0.365 |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ | A | **3SE5 122-0CE01** | | 1 | 1 unit | 102 | 0.365 |
| Slow-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 122-0KE01** | | 1 | 1 unit | 102 | 0.375 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 122-0LE01** | | 1 | 1 unit | 102 | 0.375 |
| **With metal lever and high-grade steel roller 22 mm** | | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 122-0CE02** | | 1 | 1 unit | 102 | 0.390 |
| Angular roller lever | | | | | | | | | | |
| ***Angular roller levers*** | | | | | | | | | | |
| **With metal lever and plastic roller 22 mm** | | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 122-0BF01** | | 1 | 1 unit | 102 | 0.380 |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 122-0CF01** | | 1 | 1 unit | 102 | 0.380 |
| Spring rod | | | | | | | | | | |
| ***Spring rod*** | | | | | | | | | | |
| **Length 142.5 mm, with plastic plunger 50 mm** | | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | | B | **3SE5 122-0CR01** | | 1 | 1 unit | 102 | 0.385 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

[1] Popular versions.

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* You can order this quantity or a multiple thereof.

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## 3SE5, metal enclosures
## Enclosure width 56 mm

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry 3 × (M20 × 1.5)

| Version | Contacts | LEDs | | DT | Complete units<br>Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **Complete units[1] • Enclosure width 56 mm** | | | | | | | | | | |
| ***Twist levers*** | | | | | | | | | | |
| **With metal lever 27 mm and plastic roller 19 mm** | | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 122-0BH01** | | 1 | 1 unit | 102 | 0.410 |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ | A | **3SE5 122-0CH01** | | 1 | 1 unit | 102 | 0.410 |
| Slow-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 122-0KH01** | | 1 | 1 unit | 102 | 0.420 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 122-0LH01** | | 1 | 1 unit | 102 | 0.420 |
| **With metal lever 27 mm and high-grade steel roller 19 mm** | | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 122-0CH02** | | 1 | 1 unit | 102 | 0.250 |
| Snap-action contacts | 1 NO + 2 NC | -- | | B | **3SE5 122-0LH02** | | 1 | 1 unit | 102 | 0.250 |
| ***Twist levers, adjustable length*** | | | | | | | | | | |
| **With metal lever with grid hole and plastic roller 19 mm** | | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 122-0BH60** | | 1 | 1 unit | 102 | 0.250 |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ | A | **3SE5 122-0CH60** | | 1 | 1 unit | 102 | 0.250 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ | B | **3SE5 122-0LH60** | | 1 | 1 unit | 102 | 0.250 |
| **With metal lever and plastic roller 19 mm** | | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | | B | **3SE5 122-0BH50** | | 1 | 1 unit | 102 | 0.420 |
| Snap-action contacts | 1 NO + 1 NC | -- | | A | **3SE5 122-0CH50** | | 1 | 1 unit | 102 | 0.420 |
| Snap-action contacts | 1 NO + 2 NC | -- | | B | **3SE5 122-0LH50** | | 1 | 1 unit | 102 | 0.430 |
| ***Fork levers, latching*** | | | | | | | | | | |
| **With metal lever and 2 plastic rollers 19 mm** | | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ | B | **3SE5 122-0CT11** | | 1 | 1 unit | 102 | 0.250 |
| ***Rod actuators*** | | | | | | | | | | |
| **With aluminum rod, length 200 mm** | | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | | B | **3SE5 122-0CH80** | | 1 | 1 unit | 102 | 0.250 |
| **With plastic rod, length 200 mm** | | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | | B | **3SE5 122-0CH82** | | 1 | 1 unit | 102 | 0.250 |

Twist lever

Twist lever, adjustable length

Fork lever

Rod actuator

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

[1] Popular versions.

*Note: If the device you require is not available as a complete unit, see "Modular system" on the next page.*

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* You can order this quantity or a multiple thereof.

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## 3SE5, metal enclosures
## Enclosure width 56 mm

*Modular system*

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry 3 × (M20 × 1.5)

### Basic switches • Enclosure width 56 mm

Basic switch

With increased corrosion protection

With 2 LEDs

| Version | Contacts | LEDs | DT | Modular system Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **With 3 x M20 x 1.5 connecting thread** | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ A | **3SE5 122-0BA00** | | 1 | 1 unit | 102 | 0.315 |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ A | **3SE5 122-0CA00** | | 1 | 1 unit | 102 | 0.315 |
| Slow-action contacts | 1 NO + 2 NC | -- | ➔ B | **3SE5 122-0KA00** | | 1 | 1 unit | 102 | 0.325 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ A | **3SE5 122-0LA00** | | 1 | 1 unit | 102 | 0.325 |
| Slow-action contacts with make-before-break | 1 NO + 2 NC | -- | ➔ B | **3SE5 122-0MA00** | | 1 | 1 unit | 102 | 0.335 |
| Slow-action contacts | 2 NO + 1 NC | -- | ➔ B | **3SE5 122-0PA00** | | 1 | 1 unit | 102 | 0.335 |
| **With increased corrosion protection**[1] | | | | | | | | | |
| Slow-action contacts | 1 NO + 1 NC | -- | ➔ B | **3SE5 122-0BA00-1CA0** | | 1 | 1 unit | 102 | 0.315 |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ B | **3SE5 122-0CA00-1CA0** | | 1 | 1 unit | 102 | 0.315 |
| Slow-action contacts | 1 NO + 2 NC | -- | ➔ B | **3SE5 122-0KA00-1CA0** | | 1 | 1 unit | 102 | 0.325 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ B | **3SE5 122-0LA00-1CA0** | | 1 | 1 unit | 102 | 0.335 |
| Slow-action contacts with make-before-break | 1 NO + 2 NC | -- | ➔ B | **3SE5 122-0MA00-1CA0** | | 1 | 1 unit | 102 | 0.335 |
| Slow-action contacts | 2 NO + 1 NC | -- | ➔ B | **3SE5 122-0PA00-1CA0** | | 1 | 1 unit | 102 | 0.335 |
| **With 2 LEDs, yellow/green** | | | | | | | | | |
| Slow-action contacts | 1 NO + 2 NC | 24 V DC | ➔ B | **3SE5 122-1KA00** | | 1 | 1 unit | 102 | 0.330 |
| Snap-action contacts | 1 NO + 2 NC | 24 V DC | ➔ B | **3SE5 122-1LA00** | | 1 | 1 unit | 102 | 0.330 |
| Slow-action contacts | 1 NO + 2 NC | 230 V AC | ➔ B | **3SE5 122-3KA00** | | 1 | 1 unit | 102 | 0.330 |
| Snap-action contacts | 1 NO + 2 NC | 230 V AC | ➔ B | **3SE5 122-3LA00** | | 1 | 1 unit | 102 | 0.330 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

[1] Use corresponding high-grade steel lever.

*Note: For selection aid, see page 8/19.*

### Operating mechanisms

Rounded/roller plunger

Roller lever

Angular roller lev.

Spring rod

| Version | Diameter mm | DT | Modular system Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|
| **Rounded plungers, type B acc. to EN 50041** | | | | | | | | |
| High-grade steel plungers, with 3 mm overtravel | | ➔ B | **3SE5 000-0AC02** | | 1 | 1 unit | 102 | 0.030 |
| **Roller plunger, type C acc. to EN 50041** | | | | | | | | |
| High-grade steel roller, with 3 mm overtravel | 13 | ➔ B | **3SE5 000-0AD02** | | 1 | 1 unit | 102 | 0.050 |
| **Roller levers** | | | | | | | | |
| Metal lever, plastic roller | 22 | ➔ A | **3SE5 000-0AE01** | | 1 | 1 unit | 102 | 0.045 |
| Metal lever, high-grade steel roller | 22 | ➔ B | **3SE5 000-0AE02** | | 1 | 1 unit | 102 | 0.065 |
| High-grade steel lever, plastic roller | 22 | ➔ B | **3SE5 000-0AE03** | | 1 | 1 unit | 102 | 0.040 |
| High-grade steel lever, high-grade steel roller | 22 | ➔ B | **3SE5 000-0AE04** | | 1 | 1 unit | 102 | 0.065 |
| **Angular roller levers** | | | | | | | | |
| Metal lever, plastic roller | 22 | ➔ A | **3SE5 000-0AF01** | | 1 | 1 unit | 102 | 0.050 |
| Metal lever, high-grade steel roller | 22 | ➔ B | **3SE5 000-0AF02** | | 1 | 1 unit | 102 | 0.075 |
| High-grade steel lever, plastic roller | 22 | ➔ B | **3SE5 000-0AF03** | | 1 | 1 unit | 102 | 0.050 |
| High-grade steel lever, high-grade steel roller | 22 | ➔ B | **3SE5 000-0AF04** | | 1 | 1 unit | 102 | 0.075 |
| **Spring rod** (for switches with snap-action contacts only) | | | | | | | | |
| Plastic plunger: | | | | | | | | |
| • Length 142.5 mm (spring 50 mm, plunger 50 mm) | | B | **3SE5 000-0AR01** | | 1 | 1 unit | 102 | 0.060 |
| • Length 76 mm (spring 23.5 mm, plunger 10 mm) | | B | **3SE5 000-0AR03** | | 1 | 1 unit | 102 | 0.020 |
| • Length 242.5 mm (spring 150 mm, plunger 50 mm) | | B | **3SE5 000-0AR04** | | 1 | 1 unit | 102 | 0.040 |
| High-grade steel plunger: | | | | | | | | |
| • Length 142.5 mm (spring 50 mm, plunger 50 mm) | | B | **3SE5 000-0AR02** | | 1 | 1 unit | 102 | 0.040 |

➔ Positively driven actuator, necessary in safety circuits.

* You can order this quantity or a multiple thereof.

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## 3SE5, metal enclosures
## Enclosure width 56 mm

| Version | Diameter mm | DT | Modular system Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|
| **Twist actuators** | | | | | | | | |
| **Twist actuators**, metal (without lever) | | | | | | | | |
| • For twist levers and rod actuators, switching right and/or left, adjustable | | ➔ A | **3SE5 000-0AH00** | | 1 | 1 unit | 102 | 0.070 |
| • For fork levers, latching | | ➔ B | **3SE5 000-0AT10** | | 1 | 1 unit | 102 | 0.070 |
| ***Levers for twist actuators*** | | | | | | | | |
| **Twist levers 27 mm, offset, type A acc. to EN 50041** | | | | | | | | |
| Metal lever, plastic roller | 19 | ➔ A | **3SE5 000-0AA01** | | 1 | 1 unit | 102 | 0.015 |
| Metal lever, high-grade steel roller | 19 | ➔ A | **3SE5 000-0AA02** | | 1 | 1 unit | 102 | 0.035 |
| Metal lever, roller with ball bearing | 19 | ➔ B | **3SE5 000-0AA03** | | 1 | 1 unit | 102 | 0.020 |
| Metal lever, 2 plastic rollers | 19 | ➔ B | **3SE5 000-0AA04** | | 1 | 1 unit | 102 | 0.015 |
| Metal lever, plastic roller | 30 | ➔ B | **3SE5 000-0AA05** | | 1 | 1 unit | 102 | 0.015 |
| Metal lever, plastic roller | 50 | ➔ B | **3SE5 000-0AA07** | | 1 | 1 unit | 102 | 0.020 |
| Metal lever, rubber roller | 50 | ➔ B | **3SE5 000-0AA08** | | 1 | 1 unit | 102 | 0.030 |
| High-grade steel lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA11** | | 1 | 1 unit | 102 | 0.015 |
| High-grade steel lever, high-grade steel roller | 19 | ➔ B | **3SE5 000-0AA12** | | 1 | 1 unit | 102 | 0.025 |
| **Twist levers 35 mm, offset** | | | | | | | | |
| Metal lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA15** | | 1 | 1 unit | 102 | 0.050 |
| **Twist levers 30 mm, straight**[1] | | | | | | | | |
| Metal lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA24** | | 1 | 1 unit | 102 | 0.020 |
| **Twist levers, adjustable length, with grid holes** | | | | | | | | |
| Metal lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA60** | | 1 | 1 unit | 102 | 0.025 |
| Metal lever, high-grade steel roller | 19 | ➔ B | **3SE5 000-0AA61** | | 1 | 1 unit | 102 | 0.040 |
| Metal lever, plastic roller | 50 | ➔ B | **3SE5 000-0AA67** | | 1 | 1 unit | 102 | 0.025 |
| Metal lever, rubber roller | 50 | ➔ B | **3SE5 000-0AA68** | | 1 | 1 unit | 102 | 0.045 |
| High-grade steel lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA62** | | 1 | 1 unit | 102 | 0.025 |
| High-grade steel lever, high-grade steel roller | 19 | ➔ B | **3SE5 000-0AA63** | | 1 | 1 unit | 102 | 0.040 |
| **Twist levers, adjustable length** | | | | | | | | |
| Metal lever, plastic roller | 19 | A | **3SE5 000-0AA50** | | 1 | 1 unit | 102 | 0.025 |
| Metal lever, high-grade steel roller | 19 | B | **3SE5 000-0AA51** | | 1 | 1 unit | 102 | 0.035 |
| Metal lever, plastic roller | 30 | B | **3SE5 000-0AA55** | | 1 | 1 unit | 102 | 0.025 |
| Metal lever, plastic roller | 50 | B | **3SE5 000-0AA57** | | 1 | 1 unit | 102 | 0.025 |
| Metal lever, rubber roller | 50 | B | **3SE5 000-0AA58** | | 1 | 1 unit | 102 | 0.040 |
| High-grade steel lever, plastic roller | 19 | B | **3SE5 000-0AA52** | | 1 | 1 unit | 102 | 0.025 |
| High-grade steel lever, high-grade steel roller | 19 | B | **3SE5 000-0AA53** | | 1 | 1 unit | 102 | 0.035 |
| **Fork lever** (for switches with snap-action contacts only) | | | | | | | | |
| 2 metal levers, 2 plastic rollers | 19 | ➔ B | **3SE5 000-0AT01** | | 1 | 1 unit | 102 | 0.050 |
| 2 metal levers, 2 high-grade steel rollers | 19 | ➔ B | **3SE5 000-0AT02** | | 1 | 1 unit | 102 | 0.050 |
| 2 high-grade steel levers, 2 plastic rollers | 19 | ➔ B | **3SE5 000-0AT03** | | 1 | 1 unit | 102 | 0.050 |
| 2 high-grade steel levers, 2 high-grade steel rollers | 19 | ➔ B | **3SE5 000-0AT04** | | 1 | 1 unit | 102 | 0.050 |
| **Rod actuators, type D acc. to EN 50041** | | | | | | | | |
| Aluminum rod, length 200 mm | 6 | B | **3SE5 000-0AA80** | | 1 | 1 unit | 102 | 0.070 |
| Spring rod, length 200 mm | 6 | B | **3SE5 000-0AA81** | | 1 | 1 unit | 102 | 0.030 |
| Plastic rod, length 200 mm | 6 | B | **3SE5 000-0AA82** | | 1 | 1 unit | 102 | 0.020 |

Twist actuator

Twist lever

Twist levers, adjustable length

Fork lever

Rod actuator

➔ Positively driven actuator, necessary in safety circuits.

[1] Can be mounted on bead (180°).

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* You can order this quantity or a multiple thereof.

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## 3SE5, metal enclosures
## Ambient temperature up to –40 °C

### Selection and ordering data

#### *Complete units*

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

| Version | Contacts | LEDs | DT | Complete units ☐ Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Complete units • Enclosure width 40 mm** | | | | | | | | | |
| *Twist levers, adjustable length* | | | | | | | | | |
| **With high-grade steel lever with grid hole and plastic roller 19 mm** | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ A | **3SE5 112-0CH62-1AJ0** | | 1 | 1 unit | 102 | 0.300 |

Twist lever, adjustable length

#### *Modular system*

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

| Version | Contacts | LEDs | DT | Modular system ◇ Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Basic switches • Enclosure width 40 mm** | | | | | | | | | |
| **With teflon plunger** | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ B | **3SE5 112-0CA00-1AJ0** | | 1 | 1 unit | 102 | 0.260 |
| Slow-action contacts | 1 NO + 2 NC | -- | ➔ B | **3SE5 112-0KA00-1AJ0** | | 1 | 1 unit | 102 | 0.270 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ B | **3SE5 112-0LA00-1AJ0** | | 1 | 1 unit | 102 | 0.270 |
| **Basic switches • Enclosure width 56 mm** | | | | | | | | | |
| **With teflon plunger** | | | | | | | | | |
| Snap-action contacts | 1 NO + 1 NC | -- | ➔ B | **3SE5 122-0CA00-1AJ0** | | 1 | 1 unit | 102 | 0.260 |
| Slow-action contacts | 1 NO + 2 NC | -- | ➔ B | **3SE5 122-0KA00-1AJ0** | | 1 | 1 unit | 102 | 0.325 |
| Snap-action contacts | 1 NO + 2 NC | -- | ➔ B | **3SE5 122-0LA00-1AJ0** | | 1 | 1 unit | 102 | 0.325 |

Basic switch

Basic switch

➔ Positive opening acc. to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

*Note: For selection aid, see page 8/19.*

* You can order this quantity or a multiple thereof.

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## 3SE5, metal enclosures
## Ambient temperature up to –40 °C

| | Version | Diameter mm | DT | Modular system Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Operating mechanisms** | | | | | | | | | |
| Rounded plunger | **Rounded plungers, type B acc. to EN 50041** | | | | | | | | |
| | High-grade steel rollers | 10 | ➔ B | **3SE5 000-0AC02-1AJ0** | | 1 | 1 unit | 102 | 0.030 |
| Roller plunger | **Roller plunger, type C acc. to EN 50041** | | | | | | | | |
| | High-grade steel rollers | 10 | ➔ B | **3SE5 000-0AD02-1AJ0** | | 1 | 1 unit | 102 | 0.050 |
| Roller lever | **Roller levers** | | | | | | | | |
| | Metal lever, plastic roller | 13 | ➔ B | **3SE5 000-0AE01-1AJ0** | | 1 | 1 unit | 102 | 0.050 |
| | High-grade steel lever, plastic roller | 13 | ➔ B | **3SE5 000-0AE03-1AJ0** | | 1 | 1 unit | 102 | 0.050 |
| Angular roller lever | **Angular roller levers** | | | | | | | | |
| | Metal lever, plastic roller | 13 | ➔ B | **3SE5 000-0AF01-1AJ0** | | 1 | 1 unit | 102 | 0.050 |
| | High-grade steel lever, plastic roller | 13 | ➔ B | **3SE5 000-0AF03-1AJ0** | | 1 | 1 unit | 102 | 0.050 |
| **Twist actuators** | | | | | | | | | |
| Twist actuator | **Twist actuators**, metal (without lever) | | | | | | | | |
| | Switching right and/or left, adjustable | | ➔ B | **3SE5 000-0AH00-1AJ0** | | 1 | 1 unit | 102 | 0.070 |
| | *Levers for twist actuators* | | | | | | | | |
| Twist lever | **Twist levers, type A acc. to EN 50041** | | | | | | | | |
| | Metal lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA01-1AJ0** | | 1 | 1 unit | 102 | 0.015 |
| | High-grade steel lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA11-1AJ0** | | 1 | 1 unit | 102 | 0.015 |
| Twist lever, adjustable length | **Twist levers, adjustable length, with grid holes** | | | | | | | | |
| | Metal lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA60-1AJ0** | | 1 | 1 unit | 102 | 0.025 |
| | High-grade steel lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA62-1AJ0** | | 1 | 1 unit | 102 | 0.025 |

➔ Positively driven actuator, necessary in safety circuits.

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* You can order this quantity or a multiple thereof.

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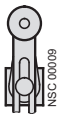
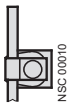
## 3SE2, metal enclosures
## Enclosure width 56 mm

### Selection and ordering data

*Complete units*

4 contacts · Degree of protection IP67 · Cable entry 3 × (M20 × 1.5)

| | Version | Contacts | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Complete units • Enclosure width 56 mm** | | | | | | | | | |
| Plunger | ***Plungers*** | | | | | | | | |
| | **With plastic head and high-grade steel plunger** | | | | | | | | |
| | Slow-action contacts | 2 NO + 2 NC | ➔ B | **3SE2 404-0B** | | 1 | 1 unit | 102 | 0.355 |
| | Snap-action contacts | 2 NO + 2 NC | ➔ B | **3SE2 404-1B** | | 1 | 1 unit | 102 | 0.353 |
| | Slow-action contacts with make-before-break | 2 NO + 2 NC | ➔ C | **3SE2 404-2B** | | 1 | 1 unit | 102 | 0.380 |
| NSC00097 Rounded plunger | ***Rounded plungers*** | | | | | | | | |
| | **With metal head and high-grade steel plunger** | | | | | | | | |
| | Slow-action contacts | 2 NO + 2 NC | ➔ B | **3SE2 404-0C** | | 1 | 1 unit | 102 | 0.395 |
| | Snap-action contacts | 2 NO + 2 NC | ➔ B | **3SE2 404-1C** | | 1 | 1 unit | 102 | 0.385 |
| | Slow-action contacts with make-before-break | 2 NO + 2 NC | ➔ C | **3SE2 404-2C** | | 1 | 1 unit | 102 | 0.400 |
| NSC 00098 Roller plunger | ***Roller plungers*** | | | | | | | | |
| | **With metal head and brass roller, 13 mm** | | | | | | | | |
| | Slow-action contacts | 2 NO + 2 NC | ➔ C | **3SE2 404-0D** | | 1 | 1 unit | 102 | 0.403 |
| | Snap-action contacts | 2 NO + 2 NC | ➔ B | **3SE2 404-1D** | | 1 | 1 unit | 102 | 0.420 |
| | Slow-action contacts with make-before-break | 2 NO + 2 NC | ➔ C | **3SE2 404-2D** | | 1 | 1 unit | 102 | 0.420 |
| NSC 00099 Roller lever | ***Roller levers*** | | | | | | | | |
| | **With metal lever and plastic roller 22 mm** | | | | | | | | |
| | Slow-action contacts | 2 NO + 2 NC | ➔ B | **3SE2 404-0E** | | 1 | 1 unit | 102 | 0.381 |
| | Snap-action contacts | 2 NO + 2 NC | ➔ B | **3SE2 404-1E** | | 1 | 1 unit | 102 | 0.380 |
| | Slow-action contacts with make-before-break | 2 NO + 2 NC | ➔ B | **3SE2 404-2E** | | 1 | 1 unit | 102 | 0.380 |
| NSC00093 Angular roller lever | ***Angular roller levers*** | | | | | | | | |
| | **With metal lever and plastic roller 22 mm** | | | | | | | | |
| | Slow-action contacts | 2 NO + 2 NC | ➔ C | **3SE2 404-0F** | | 1 | 1 unit | 102 | 0.380 |
| | Snap-action contacts | 2 NO + 2 NC | ➔ B | **3SE2 404-1F** | | 1 | 1 unit | 102 | 0.383 |
| | Slow-action contacts with make-before-break | 2 NO + 2 NC | ➔ C | **3SE2 404-2F** | | 1 | 1 unit | 102 | 0.400 |
| NSC 00094 Twist lever | ***Twist levers*** | | | | | | | | |
| | **With metal lever and plastic roller 19 mm** | | | | | | | | |
| | Slow-action contacts | 2 NO + 2 NC | ➔ B | **3SE2 404-0GW** | | 1 | 1 unit | 102 | 0.470 |
| | Snap-action contacts | 2 NO + 2 NC | ➔ B | **3SE2 404-1GW** | | 1 | 1 unit | 102 | 0.469 |
| | Slow-action contacts with make-before-break | 2 NO + 2 NC | ➔ C | **3SE2 404-2GW** | | 1 | 1 unit | 102 | 0.480 |
|  NSC 00009 Twist lever, adjustable length | ***Twist levers, adjustable length*** | | | | | | | | |
| | **With metal lever and plastic roller 19 mm** | | | | | | | | |
| | Slow-action contacts | 2 NO + 2 NC | C | **3SE2 404-0UW** | | 1 | 1 unit | 102 | 0.477 |
| | Snap-action contacts | 2 NO + 2 NC | B | **3SE2 404-1UW** | | 1 | 1 unit | 102 | 0.479 |
| | Slow-action contacts with make-before-break | 2 NO + 2 NC | C | **3SE2 404-2UW** | | 1 | 1 unit | 102 | 0.380 |
|  NSC 00010 Rod actuator | ***Rod actuators*** | | | | | | | | |
| | **With plastic rod** | | | | | | | | |
| | Slow-action contacts | 2 NO + 2 NC | C | **3SE2 404-0WW** | | 1 | 1 unit | 102 | 0.380 |
| | Snap-action contacts | 2 NO + 2 NC | B | **3SE2 404-1WW** | | 1 | 1 unit | 102 | 0.476 |
| | Slow-action contacts with make-before-break | 2 NO + 2 NC | B | **3SE2 404-2WW** | | 1 | 1 unit | 102 | 0.490 |
| | **With aluminum rod** | | | | | | | | |
| | Slow-action contacts | 2 NO + 2 NC | C | **3SE2 404-0VW** | | 1 | 1 unit | 102 | 0.490 |
| | Snap-action contacts | 2 NO + 2 NC | C | **3SE2 404-1VW** | | 1 | 1 unit | 102 | 0.488 |
| | Slow-action contacts with make-before-break | 2 NO + 2 NC | C | **3SE2 404-2VW** | | 1 | 1 unit | 102 | 0.380 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

* You can order this quantity or a multiple thereof.

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### *Basic switches without operating mechanism*

4 contacts · Degree of protection IP67 · Cable entry 3 × (M20 × 1.5)

| | Version | Contacts | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Basic switches • Enclosure width 56 mm** | | | | | | | | | |
| Basic switch | **With plastic plunger** | | | | | | | | |
| | Slow-action contacts | 2 NO + 2 NC | ➔ C | **3SE2 404-0A** | | 1 | 1 unit | 102 | 0.420 |
| | Snap-action contacts | 2 NO + 2 NC | ➔ B | **3SE2 404-1A** | | 1 | 1 unit | 102 | 0.339 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

## Accessories

The operating mechanisms of the position switches with metal enclosure can be subsequently replaced with other versions.

| | Version | Can be used for position switches | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Complete actuators** | | | | | | | | | |
| 3SX3 100 | **Plungers** With screws and gasket | 3SE2 ...–.B | ➔ ▶ | **3SX3 100** | | 1 | 1 unit | 102 | 0.020 |
| 3SX3 106 | **Rounded plungers** With screws and gasket | 3SE2 ...–.C | ➔ ▶ | **3SX3 106** | | 1 | 1 unit | 102 | 0.055 |
| 3SX3 107 | **Roller plungers** With screws and gasket | 3SE2 ...–.D | | | | | | | |
| | • With brass roller (standard) | | ➔ ▶ | **3SX3 107** | | 1 | 1 unit | 102 | 0.080 |
| | • With high-grade steel roller | | ➔ B | **3SX3 263** | | 1 | 1 unit | 102 | 0.080 |
| 3SX3 102 | **Roller levers** With screws and gasket | 3SE2 ...–.E | | | | | | | |
| | • With plastic roller (standard) | | ➔ ▶ | **3SX3 102** | | 1 | 1 unit | 102 | 0.035 |
| | • With high-grade steel roller | | ➔ B | **3SX3 275** | | 1 | 1 unit | 102 | 0.050 |
| 3SX3 104 | **Angular roller levers** With screws and gasket | 3SE2 ...– .F | | | | | | | |
| | • With plastic roller (standard) | | ➔ ▶ | **3SX3 104** | | 1 | 1 unit | 102 | 0.040 |
| | • With high-grade steel roller | | ➔ B | **3SX3 276** | | 1 | 1 unit | 102 | 0.050 |

➔ Positively driven actuator, necessary in safety circuits.

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* You can order this quantity or a multiple thereof.

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## 3SE2, metal enclosures
## Enclosure width 40 mm / 56 mm

| | Version | Can be used for position switches | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Actuators with separate twist actuator** | | | | | | | | | |
| 3SX3 211 | **Twist actuators** With round spindle, screws and gasket | | | | | | | | |
| | • Standard | 3SE2 ...–.GW, 3SE2 ...–.UW, 3SE2 ...–.VW, 3SE2 ...–.WW | ▶ | **3SX3 211** | | 1 | 1 unit | 102 | 0.112 |
| | • Switching right and/or left, adjustable | 3SE2 ...–.GW, 3SE2 ...–.UW, 3SE2 ...–.VW, 3SE2 ...–.WW | B | **3SX3 307** | | 1 | 1 unit | 102 | 0.085 |
| | • For fork levers | 3SE2 1..–.T | C | **3SX3 127** | | 1 | 1 unit | 102 | 0.131 |
| 3SX3 212 | **Twist levers, 30 mm long** For round spindle | 3SE2 ...–.GW | | | | | | | |
| | • With plastic roller, Ø 19 mm | | ➔ ▶ | **3SX3 212** | | 1 | 1 unit | 102 | 0.020 |
| | • With high-grade steel roller, Ø 19 mm | | ➔ B | **3SX3 265** | | 1 | 1 unit | 102 | 0.025 |
| 3SX3 301 | • With ball bearing and roller, Ø 19 mm | | ➔ B | **3SX3 320** | | 1 | 1 unit | 102 | 0.025 |
| | • With plastic roller, Ø 30 mm | | ➔ B | **3SX3 278** | | 1 | 1 unit | 102 | 0.020 |
| | • With plastic roller, Ø 50 mm | | ➔ B | **3SX3 301** | | 1 | 1 unit | 102 | 0.020 |
| | • With rubber roller, Ø 50 mm | | ➔ B | **3SX3 280** | | 1 | 1 unit | 102 | 0.020 |
| 3SX3 213 | **Twist levers, adjustable length** With clamp | 3SE2 ...–.UW | | | | | | | |
| | • With plastic roller, Ø 19 mm | | ▶ | **3SX3 213** | | 1 | 1 unit | 102 | 0.024 |
| | • With high-grade steel roller, Ø 19 mm | | B | **3SX3 268** | | 1 | 1 unit | 102 | 0.030 |
| | • With plastic roller, Ø 30 mm | | B | **3SX3 302** | | 1 | 1 unit | 102 | 0.025 |
| | • With rubber roller, Ø 50 mm | | B | **3SX3 304** | | 1 | 1 unit | 102 | 0.020 |
| | **Roller rods, adjustable length** (without clamp) | 3SE2 ...–.UW | B | **3SY3 024** | | 1 | 1 unit | 102 | 0.036 |
| | **Twist levers, adjustable length with grid hole**, With clamp | 3SE2 ...–.UW | ➔ B | **3SX3 321** | | 1 | 1 unit | 102 | 0.025 |
| 3SX3 215 | **Rod actuators with holder** | | | | | | | | |
| | • Plastic rod, 200 mm | 3SE2 ...–.WW | ▶ | **3SX3 215** | | 1 | 1 unit | 102 | 0.031 |
| | • Aluminum rod, 200 mm | 3SE2 ...–.VW | ▶ | **3SX3 214** | | 1 | 1 unit | 102 | 0.032 |
| | **Rod actuators** (without holder) | | | | | | | | |
| | • Plastic rod, 200 mm | 3SE2 ...–.WW | ▶ | **3SX3 000** | | 1 | 1 unit | 102 | 0.008 |
| | • Aluminum rod, 200 mm | 3SE2 ...–.VW | B | **3SX3 001** | | 1 | 1 unit | 102 | 0.016 |
| 3SX3 115 | **Fork levers**[1] | 3SE2 1..–.T | | | | | | | |
| | • With 2 plastic rollers, Ø 19 mm | | ➔ B | **3SX3 115** | | 1 | 1 unit | 102 | 0.032 |
| | • With 2 high-grade steel rollers, Ø 19 mm | | ➔ B | **3SX3 266** | | 1 | 1 unit | 102 | 0.050 |

➔ Positively driven actuator, necessary in safety circuits.

[1] Only for switches with snap-action contacts.

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* You can order this quantity or a multiple thereof.

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## Overview

In harsh industrial environments and in installations with limited space, the small 3SE3 160 and 3SE3 180 compact switches are ideal. The switches are already equipped with a molded cable of 2 m in length and can therefore be installed in the smallest spaces.

Both the enclosure and the twist actuator are made of metal and comply with the high IP67 degree of protection. The roller plunger, rounded plunger and twist lever are available as operating mechanisms.

The contact block is designed with snap-action contacts 1 NO + 1 NC. The NC contact complies with the requirements for positive opening acc. to IEC 60947-5-1.

The 3SE3 1 position switch with molded cable is available in different sizes:

- The 3SE3 180 series complies with the EU standard and features a 30 mm wide enclosure with drilled holes at a distance of 20 mm.
- The 3SE3 160 series meets the requirements of the US market and features a 40 mm wide enclosure with drilled holes at a spacing of 25 mm.

## Selection and ordering data

2 contacts · Degree of protection IP67 · With 2 m cable

| | Operating mechanisms | Enclosure width | DT | Snap-action contacts 1 NO + 1 NC | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|---|---|---|---|---|---|---|---|
| | | mm | | Order No. / Price per PU | | | | kg |
| **Complete units • Enclosure width 30 and 40 mm** | | | | | | | | |
| | **Rounded plungers** | | | | | | | |
| | • Standard mounting | 30 | ➔ A | **3SE3 180-1C** | 1 | 1 unit | 102 | 0.316 |
| | | 40 | ➔ A | **3SE3 160-1C** | 1 | 1 unit | 102 | 0.332 |
| | • With M12 connecting thread | 30 | ➔ A | **3SE3 180-1CJ** | 1 | 1 unit | 102 | 0.331 |
| | | 40 | ➔ A | **3SE3 160-1CJ** | 1 | 1 unit | 102 | 0.351 |
| | **Roller plungers** | | | | | | | |
| | • Standard mounting | 30 | ➔ A | **3SE3 180-1D** | 1 | 1 unit | 102 | 0.323 |
| | | 40 | ➔ A | **3SE3 160-1D** | 1 | 1 unit | 102 | 0.348 |
| | • With M12 connecting thread | 30 | ➔ A | **3SE3 180-1DJ** | 1 | 1 unit | 102 | 0.334 |
| | | 40 | ➔ A | **3SE3 160-1DJ** | 1 | 1 unit | 102 | 0.364 |
| | **Twist levers** | 30 | ➔ A | **3SE3 180-1G** | 1 | 1 unit | 102 | 0.366 |
| | | 40 | ➔ A | **3SE3 160-1G** | 1 | 1 unit | 102 | 0.395 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

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* You can order this quantity or a multiple thereof.

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## 3SE5, open-type design

### Overview

Their compact design makes these switches particularly suitable for use in confined conditions. The fixing dimensions and operating points are acc. to EN 50047.

The switches are equipped with two or three contacts in slow-action or snap-action versions. The stroke is 6 mm.

The empty enclosure can be equipped with all switch block variants (see page 8/50).

### Selection and ordering data

2 or 3 contacts · Degree of protection IP20 (2 contacts), IP10 (3 contacts)

| | Version | Contacts | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Plastic enclosures • Enclosure width 30 mm** | | | | | | | | | |
| | **With teflon plunger, Ø 6 mm** | | | | | | | | |
| 2 contacts | Slow-action contacts | 1 NO + 1 NC | ➔ A | **3SE5 250-0BC05** | | 1 | 1 unit | 102 | 0.025 |
| | Snap-action contacts | 1 NO + 1 NC | ➔ ► | **3SE5 250-0CC05** | | 1 | 1 unit | 102 | 0.025 |
| 3 contacts | Slow-action contacts | 1 NO + 2 NC | ➔ B | **3SE5 250-0KC05** | | 1 | 1 unit | 102 | 0.035 |
| | Snap-action contacts | 1 NO + 2 NC | ➔ A | **3SE5 250-0LC05** | | 1 | 1 unit | 102 | 0.035 |
| | Slow-action contacts with make-before-break | 1 NO + 2 NC | ➔ B | **3SE5 250-0MC05** | | 1 | 1 unit | 102 | 0.035 |
| | Slow-action contacts | 2 NO + 1 NC | ➔ A | **3SE5 250-0PC05** | | 1 | 1 unit | 102 | 0.035 |
| Empty enclosures | Empty enclosures without contact block | -- | ➔ B | **3SE5 250-0AC05** | | 1 | 1 unit | 102 | 0.015 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

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* You can order this quantity or a multiple thereof.

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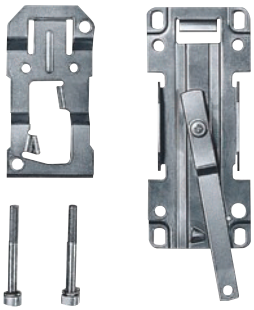
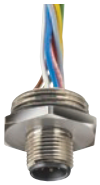
## Selection and ordering data

The quick-release devices and plug-in connections are used for fast installation and replacement of position switches.

| | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|
| **Quick-release devices for enclosure width 40 mm** | | | | | | | | |
|  3SY3 110 3SY3 027 | **Adapter plates with screws** | B | **3SY3 110** | | 1 | 1 unit | 102 | 0.055 |
| | **Base plates with locking lever** | B | **3SY3 027** | | 1 | 1 unit | 102 | 0.080 |
| **Plug-in connections for M20 × 1.5 connecting threads** | | | | | | | | |
| 3SY3 131 3SY3 136 | **Connector sockets (6-pole + PE), for M20 × 1.5** for max. 250 V, 10 A<br>With 0.75 mm² connecting cable, plastic, degree of protection IP65, ambient temperature –40 to +90 °C | B | **3SY3 131** | | 1 | 1 unit | 102 | 0.030 |
| | **Cable box (6-pole + PE)**[1]<br>With terminal compartment, can be pre-assembled, plastic, degree of protection IP65 | A | **3SY3 136** | | 1 | 1 unit | 102 | 0.065 |
| | **Connector sockets (4-pole), M12, for M20 × 1.5, fixed**<br>For max 250 V, 4 A, $U_{imp}$ = 2500 V<br>With four 0.25 mm² connecting cables, plastic, degree of protection IP67, ambient temperature –40 to +85 °C | B | **3SY3 127** | | 1 | 1 unit | 102 | 0.010 |
| 3SY3 127 3RX8 000 | **Cable boxes (4-pole), M12**<br>With terminal compartment, can be pre-assembled[2] | A | **3RX8 000-0CB45** | | 1 | 1 unit | 574 | 0.015 |
| | **Angular cable boxes (4-pole), M12**<br>With terminal compartment, can be pre-assembled[2] | A | **3RX8 000-0CC45** | | 1 | 1 unit | 574 | 0.015 |
| | **Connector sockets (5-pole), M12, for M20 × 1.5, fixed**<br>For max. 125 V, 4 A, $U_{imp}$ = 1500 V<br>With five 0.25 mm² connecting cables, plastic, degree of protection IP67, ambient temperature –40 to +85 °C | B | **3SY3 128** | | 1 | 1 unit | 102 | 0.010 |
|  3SY3 134 | **Cable boxes (5-pole), M12**<br>With terminal compartment, can be pre-assembled[2] | A | **3RX8 000-0CB55** | | 1 | 1 unit | 574 | 0.016 |
| | **Angular cable boxes (5-pole), M12**<br>With terminal compartment, can be pre-assembled[2] | A | **3RX8 000-0CC55** | | 1 | 1 unit | 574 | 0.016 |
| | **Connector sockets (8-pole), M12, for M20 × 1.5, fixed, metal version**<br>for max. 30 V, 2 A, $U_{imp}$ = 800 V<br>With eight 0.25 mm² connecting cables, metal, degree of protection IP67, ambient temperature –40 to +85 °C | B | **3SY3 134** | | 1 | 1 unit | 102 | 0.025 |
| | **Cable boxes (8-pole), M12**<br>With 5 m PUR cable, 8 × 0.25 mm², IP67 [2] | A | **3RX8 000-0CB81-1GF0** | | 1 | 1 unit | 574 | 0.326 |
| **Adapters and cable glands for M20 × 1.5 connecting threads** | | | | | | | | |
| 3SX9 917 3SX9 918 | **Adapters acc. to CSA, UL and VDE**<br>For cable entry from M20 × 1.5 to NPT 1/2 | | | | | | | |
| | • Metal | B | **3SX9 917** | | 1 | 1 unit | 102 | 0.035 |
| | • Plastic | D | **3SX9 918** | | 1 | 1 unit | 102 | 0.015 |
| 3SX9 926 | **Cable glands M20 × 1.5**<br>Plastic | A | **3SX9 926** | | 1 | 1 unit | 102 | 0.010 |

[1] For wiring, a crimping tool is necessary, max. conductor cross-section 1 mm².

[2] For more cable boxes with molded cable see Industry Mall or Catalog FS 10.

* You can order this quantity or a multiple thereof.

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## Accessories and Spare Parts

| | Version | Color/ contacts | | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **Optional accessories for 3SE51, 3SE52** | | | | | | | | | | |
| | **Protective caps, rubber**, for rounded plungers acc. to EN 50047, 3SE5. ..-..C05 | Black | | B | **3SE5 000-0AC30** | | 1 | 1 unit | 102 | 0.003 |
| **Spare parts for 3SE51, 3SE52** | | | | | | | | | | |
| Enclosure width 31 mm | **Empty enclosures, plastic** | Turquoise | | | | | | | | |
| | Enclosure width 31 mm | | | B | **3SE5 232-0AC05** | | 1 | 1 unit | 102 | 0.020 |
| | • With increased corrosion protection | | | B | **3SE5 232-0AC05-1CA0** | | 1 | 1 unit | 102 | 0.020 |
| | Enclosure width 50 mm | | | B | **3SE5 242-0AC05** | | 1 | 1 unit | 102 | 0.035 |
| | • With increased corrosion protection | | | B | **3SE5 242-0AC05-1CA0** | | 1 | 1 unit | 102 | 0.035 |
| Enclosure width 40 mm | **Empty enclosures, metal** | Turquoise | | | | | | | | |
| | • With increased corrosion protection | | | B | **3SE5 212-0AC05-1CA0** | | 1 | 1 unit | 102 | 0.115 |
| | Enclosure width 40 mm | | | B | **3SE5 112-0AA00** | | 1 | 1 unit | 102 | 0.230 |
| | • With increased corrosion protection | | | B | **3SE5 112-0AA00-1CA0** | | 1 | 1 unit | 102 | 0.230 |
| | Enclosure width 56 mm | | | B | **3SE5 122-0AA00** | | 1 | 1 unit | 102 | 0.250 |
| | • With increased corrosion protection | | | B | **3SE5 122-0AA00-1CA0** | | 1 | 1 unit | 102 | 0.250 |
| 2 contacts | **Contact blocks with 2 contacts** | | | | | | | | | |
| | • Slow-action contacts | 1 NO + 1 NC | ➔ | B | **3SE5 000-0BA00** | | 1 | 1 unit | 102 | 0.050 |
| | • Snap-action contacts | 1 NO + 1 NC | | | | | | | | |
| | - Standard | | ➔ | B | **3SE5 000-0CA00** | | 1 | 1 unit | 102 | 0.050 |
| | - Gold-plated contacts | | ➔ | B | **3SE5 000-0CA00-1AC1** | | 1 | 1 unit | 102 | 0.050 |
| | - 2 × 2 mm switching interval | | ➔ | B | **3SE5 000-0GA00** | | 1 | 1 unit | 102 | 0.050 |
| | - Short stroke | | ➔ | B | **3SE5 000-0NA00** | | 1 | 1 unit | 102 | 0.050 |
| 3 contacts | **Contact blocks with 3 contacts** | | | | | | | | | |
| | • Slow-action contacts | 1 NO + 2 NC | ➔ | B | **3SE5 000-0KA00** | | 1 | 1 unit | 102 | 0.060 |
| | • Snap-action contacts | 1 NO + 2 NC | ➔ | B | **3SE5 000-0LA00** | | 1 | 1 unit | 102 | 0.060 |
| | • Slow-action contacts with make-before-break | 1 NO + 2 NC | ➔ | B | **3SE5 000-0MA00** | | 1 | 1 unit | 102 | 0.060 |
| | • Slow-action contacts | 2 NO + 1 NC | | B | **3SE5 000-0PA00** | | 1 | 1 unit | 102 | 0.060 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

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* You can order this quantity or a multiple thereof.

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| | Version | Rated voltage LED | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|---|---|---|---|---|---|---|---|---|
| | | V | | | | | | | kg |
| **Spare parts for 3SE51, 3SE52** | | | | | | | | | |
| 31 mm, turquoise with LED | **Covers for plastic enclosures, width 31 mm** | | | | | | | | |
| | • Turquoise with LED | 24 DC | B | **3SE5 230-1AA00** | | 1 | 1 unit | 102 | 0.012 |
| | | 230 AC | B | **3SE5 230-3AA00** | | 1 | 1 unit | 102 | 0.012 |
| | • Yellow | -- | B | **3SE5 230-0AA00-1AG0** | | 1 | 1 unit | 102 | 0.010 |
| | • Yellow with LED | 24 DC | B | **3SE5 230-1AA00-1AG0** | | 1 | 1 unit | 102 | 0.012 |
| | | 230 AC | B | **3SE5 230-3AA00-1AG0** | | 1 | 1 unit | 102 | 0.012 |
| 50 mm, turquoise with LED | **Covers for plastic enclosures, width 50 mm** | | | | | | | | |
| | • Turquoise with LED | 24 DC | B | **3SE5 240-1AA00** | | 1 | 1 unit | 102 | 0.015 |
| | | 230 AC | B | **3SE5 240-3AA00** | | 1 | 1 unit | 102 | 0.015 |
| | • Yellow | -- | B | **3SE5 240-0AA00-1AG0** | | 1 | 1 unit | 102 | 0.012 |
| | • Yellow with LED | 24 DC | B | **3SE5 240-1AA00-1AG0** | | 1 | 1 unit | 102 | 0.015 |
| | | 230 AC | B | **3SE5 240-3AA00-1AG0** | | 1 | 1 unit | 102 | 0.015 |
| 40 mm, yellow with LED | **Covers for metal enclosures, width 40 mm** | | | | | | | | |
| | • Turquoise with LED | 24 DC | B | **3SE5 110-1AA00** | | 1 | 1 unit | 102 | 0.060 |
| | | 230 AC | B | **3SE5 110-3AA00** | | 1 | 1 unit | 102 | 0.060 |
| | • Yellow | -- | B | **3SE5 110-0AA00-1AG0** | | 1 | 1 unit | 102 | 0.055 |
| | • Yellow with LED | 24 DC | B | **3SE5 110-1AA00-1AG0** | | 1 | 1 unit | 102 | 0.060 |
| | | 230 AC | B | **3SE5 110-3AA00-1AG0** | | 1 | 1 unit | 102 | 0.060 |
| 56 mm, yellow with LED | **Covers for metal enclosures, width 56 mm** | | | | | | | | |
| | • Turquoise with LED | 24 DC | B | **3SE5 120-1AA00** | | 1 | 1 unit | 102 | 0.085 |
| | | 230 AC | B | **3SE5 120-3AA00** | | 1 | 1 unit | 102 | 0.085 |
| | • Yellow | -- | B | **3SE5 120-0AA00-1AG0** | | 1 | 1 unit | 102 | 0.080 |
| | • Yellow with LED | 24 DC | B | **3SE5 120-1AA00-1AG0** | | 1 | 1 unit | 102 | 0.085 |
| | | 230 AC | B | **3SE5 120-3AA00-1AG0** | | 1 | 1 unit | 102 | 0.085 |

* You can order this quantity or a multiple thereof.

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## General data

### Overview

Position switches with separate actuator are used where the position of doors, covers or protective grills must be monitored for safety reasons.

3SE5 position switches with separate actuator have the same enclosures as the standard switches (modular system).

#### *Design*

Enclosure sizes

The 3SE5 switches are available in various enclosure sizes:

- Plastic enclosures acc. to EN 50047, 31 mm wide, 1 cable entry
- Plastic enclosures, 50 mm wide, 2 cable entries
- Metal enclosures acc. to EN 50041, 40 mm wide, 1 cable entry
- Metal enclosures, 56 mm wide, 3 cable entries

Also available is a switch in the 3SE2 series which has arisen in this form acc. to general market requirements:

- Molded-plastic enclosure outside of the standards, enclosure width 52 mm.

Enclosure versions

Various basic versions can be selected for the enclosures of the 3SE5 series:

- Available with two- or three-pole contact blocks designed as slow-action contacts
- Optional LED status display
- With mounted four- or five-pole M12 connector socket (available for the wide enclosures as an accessory for self-assembly)
- With 6-pole connector socket + PE on the metal enclosures
- Similarly with a combination of connector socket and LED indicators
- Metal enclosures for explosion protection (ATEX) (see page 8/72)
- AS-Interface version with integrated ASIsafe electronics for all enclosure designs (see page 8/78)

For a description of the basic switches see page 8/14.

#### *Operation*

The actuator head is included in the scope of supply. For actuation from four directions it can be adjusted through 4 × 90°. The switches can also be approached from above.

The twist actuators of the 3SE2 243 and 3SE2 257 switches with special enclosures cannot be changed. The switches can be approached from the two broad sides and from above.

The actuators are not included in the scope of supply of the position switch and must be ordered separately from a choice of six versions to suit the application (see page 8/56).

The actuator is encoded. Simple overruling by hand or auxiliary devices is impossible.

Radius actuators

The position switches with radius actuators are particularly suitable for rotatable protective devices. The movable actuation key allows even small radii to be approached. Damage to the switch and the actuator due to inaccurate approach is prevented.

Locking devices

A high-grade steel blocking insert for attaching up to eight padlocks is available for even more safety (see page 8/56).

Blocking inserts with padlock

Dust protection

A rubber cap to protect the twist actuator from contamination is available for operation in dusty environments (see page 8/56).

#### *Contact reliability*

The new contact blocks ensure an extremely high contact stability. This applies even when the devices are switching low voltages and currents, e. g. 1 mA at 5 V DC.

#### *Positive opening* ➔

The NC contacts of the switch are forced open mechanically, positively-driven and reliably by the plunger. This is referred to as "positive opening".

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## Benefits

The 3SE5 position switches with separate actuator differ from the previous series through the following new characteristics:

- All enclosure sizes are optionally available with a LED signaling indicator.
- The new three-pole contact block 1 NO + 2 NC is available for all enclosure sizes.
- The plastic enclosure has simple and fast wiring equipment which makes it possible to save from approx. 20 to 25 % of the time when connecting.
- The ASIsafe electric component is integrated for the versions with the AS-Interface connection (see page 8/78); an adapter is not required.

## Application

Position switches with separate actuator are used where the position of doors, covers or protective grills must be monitored for safety reasons.

The position switch can only be operated with the matching coded actuator. Simple overruling by hand or auxiliary devices is impossible.

Devices are available with enclosure versions to suit the particular ambient conditions. Different control tasks can be performed with the best contact blocks suited for the particular purpose. Dimensions, fixing points of the enclosure are in accordance with EN 50041 or EN 50047 standards. The devices are suitable for use in any climate.

## General data

### *Standards*

IEC 60947-5-1 or EN 60947-5-1.

The protective measure of "total insulation" by the molded-plastic enclosure is guaranteed by the use of molded-plastic screw-glands.

### *Safety position switches*

For controls acc. to IEC 60204-1 or EN 60204-1 the devices can be used as a safety position switch. To secure position switches against changes in their position, keyed techniques must be employed on installation.

### *Safety circuits*

IEC 60947-5-1 and EN 60947-5-1 require positive opening of the NC contacts, i. e. for the purposes of personal safety, the assured opening of NC contacts is expressly stipulated for the electrical equipment of machines in all safety circuits and marked acc. to the IEC standard 60947-5-1 with the symbol ➔.

Category 3 acc. to ISO 13849-1 (EN 954-1) can be attained with a position switch with a separate actuator if the corresponding failsafe evaluation units are selected and correctly installed, e. g. the 3TK28 safety relays or matching units from the ASIsafe, SIMATIC or SINUMERIK product ranges.

Category 4 can be achieved when using an additional position switch.

## More information

| Type | | 3SE5 1..-..V.., 3SE5 2..-..V.. | | 3SE2 257-.XX.. | | 3SE2 243-.XX.. | |
|---|---|---|---|---|---|---|---|
| **General data** | | | | | | | |
| **Standards** | | IEC 60947-5-1, EN 60947-5-1 | | | | | |
| **Rated insulation voltage $U_i$** | V | 400 | | 500 | | | |
| **Pollution degree** acc. to EN 60664-1 | | Class 3 | | Class 3 | | | |
| **Rated impulse withstand voltage $U_{imp}$** | kV | 6 | | | | | |
| **Rated operational voltage $U_e$** | V | AC 400; over 300 V AC only equal potential | | AC 500; over 380 V AC only equal potential | | | |
| **Conventional free-air thermal current $I_{th}$** | A | 6 | | 10 | | | |
| **Rated operational current $I_e$** | | 2-pole | 3-pole | 3-pole | | 1-pole | |
| • With alternating current 50/60 Hz | | $I_e$ / AC-15 | $I_e$ / AC-15 | $I_e$ / AC-12 | $I_e$ / AC-15 | $I_e$ / AC-12 | $I_e$ / AC-15 |
| - At 24 V | A | 6 | 6 | 10 | 10 | 10 | 10 |
| - At 120 V | A | 6 | 3 | 10 | 10 | 10 | 10 |
| - At 240 V | A | 3 | 1.5 | 10 | 6 | 10 | 4 |
| - At 400 V | A | -- | -- | 10 | 4 | 10 | 4 |
| - At 500 V | A | -- | -- | 10 | 3 | 10 | 3 |
| • For direct current | | $I_e$ / DC-13 | $I_e$ / DC-13 | $I_e$ / DC-12 | $I_e$ / DC-13 | $I_e$ / DC-12 | $I_e$ / DC-13 |
| - At 24 V | A | 3 | 3 | 10 | 10 | 10 | 10 |
| - At 125 V | A | 0.55 | 0.55 | -- | -- | -- | -- |
| - At 250 V | A | 0.27 | 0.27 | -- | -- | -- | -- |
| - At 110 V | A | -- | -- | 4 | 1 | 4 | 1 |
| - At 220 V | A | -- | -- | 1 | 0.4 | 1 | 0.4 |
| - At 440 V | A | -- | -- | 0.5 | 0.2 | 0.5 | 0.2 |
| **Short-circuit protection**[1] | | | | | | | |
| • With DIAZED fuse links, operational class gG | A | 6 | | 6 | | | |
| • With fuse links, quick | | -- | | 10 | | | |
| • With miniature circuit breaker, Char. C | A | 1 | | -- | | | |
| **Mechanical endurance** | | $1 \times 10^6$ operating cycles | | | | | |
| **Electrical endurance** | | | | | | | |
| • With 3RH11, 3RT10 16 to 3RT10 26 contactors | | $10 \times 10^6$ operating cycles | | $> 1 \times 10^6$ operating cycles | | | |
| • For utilization category AC-15 when switching off $I_e$ / AC-15 at 240 V | | $0.1 \times 10^6$ operating cycles | | $0.5 \times 10^6$ operating cycles | | | |
| **Switching frequency** with 3RH11, 3RT10 16 to 3RT10 26 contactors | | 6000 operating cycles/h | | | | | |

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## 3SE5, plastic enclosures
## Enclosure width 31 mm acc. to EN 50047 / 50 mm

### Selection and ordering data

*Complete units*

2 or 3 contacts · 5 directions of approach · Degree of protection IP65 or IP66/IP67 · Cable entry M20 × 1.5

| | Version[1)] | Contacts | LEDs | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **Enclosure width 31 mm acc. to EN 50047** | | | | | | | | | | |
| With separate actuator | **5 directions of approach** | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | -- | ➔ B | **3SE5 232-0RV40** | | 1 | 1 unit | 102 | 0.150 |
| | Slow-action contacts | 1 NO + 2 NC | -- | ➔ ► | **3SE5 232-0QV40** | | 1 | 1 unit | 102 | 0.155 |
| With M12 socket | **With M12 connector socket, 4-pole** (250 V, 4 A) | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | -- | ➔ B | **3SE5 234-0RV40-1AC4** | | 1 | 1 unit | 102 | 0.165 |
| | Slow-action contacts | 2 NC | -- | ➔ B | **3SE5 234-0QV40-1AE0** | | 1 | 1 unit | 102 | 0.170 |
| With 2 LEDs | **With 2 LEDs, yellow/green** | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | 24 V DC | ➔ B | **3SE5 232-1RV40** | | 1 | 1 unit | 102 | 0.155 |
| | Slow-action contacts | 1 NO + 1 NC | 230 V AC | ➔ B | **3SE5 232-3RV40** | | 1 | 1 unit | 102 | 0.110 |
| | **With M12 connector socket, 5-pole** (125 V, 4 A) **and 2 LEDs** | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | 24 V DC | ➔ C | **3SE5 234-1RV40-1AF3** | | 1 | 1 unit | 102 | 0.175 |
| **Enclosure width 50 mm** | | | | | | | | | | |
| With separate actuator | **5 directions of approach** | | | | | | | | | |
| | Slow-action contacts | 1 NO + 2 NC | -- | ➔ B | **3SE5 242-0QV40** | | 1 | 1 unit | 102 | 0.110 |
| With 2 LEDs | **With 2 LEDs, yellow/green** | | | | | | | | | |
| | Slow-action contacts | 1 NO + 2 NC | 24 V DC | ➔ B | **3SE5 242-1QV40** | | 1 | 1 unit | 102 | 0.120 |
| | Slow-action contacts | 1 NO + 2 NC | 230 V AC | ➔ C | **3SE5 242-3QV40** | | 1 | 1 unit | 102 | 0.120 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

1) Supplied without actuator. Please order separately (see page 8/56).

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* You can order this quantity or a multiple thereof.

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## Selection and ordering data

### *Complete units*

2 or 3 contacts · 5 directions of approach · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

| | Version[1)] | Contacts | LEDs | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **Enclosure width 40 mm acc. to EN 50041** | | | | | | | | | | |
| With separate actuator | **5 directions of approach** | | | | | | | | | |
| | Slow-action contacts | 1 NO + 2 NC | -- | ⊖ ► | **3SE5 112-0QV10** | | 1 | 1 unit | 102 | 0.315 |
| With M12 socket | **With M12 connector socket, 5-pole** (125 V, 4 A) | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | -- | ⊖ C | **3SE5 114-0RV10-1AC5** | | 1 | 1 unit | 102 | 0.325 |
| | Slow-action contacts | 2 NC | -- | ⊖ C | **3SE5 114-0QV10-1AE1** | | 1 | 1 unit | 102 | 0.325 |
| | **With connector socket, 6-pole + PE** (250 V, 10 A) | | | | | | | | | |
| | Slow-action contacts | 1 NO + 2 NC | -- | ⊖ C | **3SE5 115-0QV10-1AD1** | | 1 | 1 unit | 102 | 0.335 |
| With 2 LEDs | **With 2 LEDs, yellow/green** | | | | | | | | | |
| | Slow-action contacts | 1 NO + 2 NC | 24 V DC | ⊖ B | **3SE5 112-1QV10** | | 1 | 1 unit | 102 | 0.325 |
| | Slow-action contacts | 1 NO + 2 NC | 230 V AC | ⊖ C | **3SE5 112-3QV10** | | 1 | 1 unit | 102 | 0.325 |
| | **With M12 connector socket, 5-pole** (125 V, 4 A) **and 2 LEDs** | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | 24 V DC | ⊖ C | **3SE5 114-1RV10-1AF3** | | 1 | 1 unit | 102 | 0.325 |
| | **With connector socket, 6-pole + PE** (10 A)**, and 2 LEDs** | | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC | 24 V DC | ⊖ C | **3SE5 115-1RV10-1AF2** | | 1 | 1 unit | 102 | 0.335 |
| **Enclosure width 56 mm** | | | | | | | | | | |
| With separate actuator | **5 directions of approach** | | | | | | | | | |
| | Slow-action contacts | 1 NO + 2 NC | -- | ⊖ B | **3SE5 122-0QV10** | | 1 | 1 unit | 102 | 0.360 |
| With 2 LEDs | **With 2 LEDs, yellow/green** | | | | | | | | | |
| | Slow-action contacts | 1 NO + 2 NC | 24 V DC | ⊖ B | **3SE5 122-1QV10** | | 1 | 1 unit | 102 | 0.370 |
| | Slow-action contacts | 1 NO + 2 NC | 230 V AC | ⊖ C | **3SE5 122-3QV10** | | 1 | 1 unit | 102 | 0.370 |

⊖ Positive opening acc. to IEC 60947-5-1, Appendix K.

1) Supplied without actuator. Please order separately (see page 8/56).

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* You can order this quantity or a multiple thereof.

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## Accessories

### Selection and ordering data

| | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|
| **Actuators for 3SE5** | | | | | | | | |
| 3SE5 000-0AV01 | Standard actuators, length 75.6 mm | ► | **3SE5 000-0AV01** | | 1 | 1 unit | 102 | 0.040 |
| 3SE5 000-0AV02 | With vertical fixing, length 53 mm | A | **3SE5 000-0AV02** | | 1 | 1 unit | 102 | 0.070 |
| 3SE5 000-0AV03 | With transverse fixing, length 47 mm | A | **3SE5 000-0AV03** | | 1 | 1 unit | 102 | 0.070 |
| 3SE5 000-0AV06 | Radius actuators, length 51 mm | | | | | | | |
| | • Direction of approach from the left | A | **3SE5 000-0AV04** | | 1 | 1 unit | 102 | 0.070 |
| | • Direction of approach from the right | A | **3SE5 000-0AV06** | | 1 | 1 unit | 102 | 0.070 |
| 3SE5 000-0AV05 | Universal radius actuator, length 77 mm | A | **3SE5 000-0AV05** | | 1 | 1 unit | 102 | 0.090 |
| 3SE5 000-0AV07 | Universal radius actuators, heavy-duty | | | | | | | |
| | • Length 67 mm | A | **3SE5 000-0AV07-1AK2** | | 1 | 1 unit | 102 | 0.120 |
| | • Length 77 mm | A | **3SE5 000-0AV07** | | 1 | 1 unit | 102 | 0.090 |
| **Optional accessories for 3SE5** | | | | | | | | |
| 3SE5 000-0AV08-1AA2 | **Protective caps** made of black rubber for the actuator head, to protect the actuator openings from contamination (Only for enclosure width 40 or 56 mm) | B | **3SE5 000-0AV08-1AA2** | | 1 | 1 unit | 102 | 0.010 |
| 3SE5 000-0AV08-1AA3 | **Blocking inserts**, high-grade steel, for twist actuator, for up to 8 padlocks | B | **3SE5 000-0AV08-1AA3** | | 1 | 1 unit | 102 | 0.065 |
| **Connections for 3SE5, 3SE2** | | | | | | | | |
| 3SY3 127 3RX8 000 | **Connector sockets (4-pole), M12, fixed for M20 × 1.5** For max. 250 V, 4 A With 0.25 mm² connecting cable, plastic, degree of protection IP67, ambient temperature –40 to +85 °C | B | **3SY3 127** | | 1 | 1 unit | 102 | 0.010 |
| | **Cable boxes (4-pole), M12** With terminal compartment, can be pre-assembled[1] | A | **3RX8 000-0CB45** | | 1 | 1 unit | 574 | 0.015 |
| | **Angular cable boxes (4-pole), M12** With terminal compartment, can be pre-assembled[1] | A | **3RX8 000-0CC45** | | 1 | 1 unit | 574 | 0.015 |
| | **Connector sockets (5-pole), M12, fixed for M20 × 1.5** For max. 125 V, 4 A With 0.25 mm² connecting cable, plastic, degree of protection IP67, ambient temperature –40 to +85 °C | B | **3SY3 128** | | 1 | 1 unit | 102 | 0.010 |
| | **Cable boxes (5-pole), M12** With terminal compartment, can be pre-assembled[1] | A | **3RX8 000-0CB55** | | 1 | 1 unit | 574 | 0.016 |
| | **Angular cable boxes (5-pole), M12** With terminal compartment, can be pre-assembled[1] | A | **3RX8 000-0CC55** | | 1 | 1 unit | 574 | 0.016 |
| 3SX9 926 | **Cable glands M20 × 1.5** Plastic | A | **3SX9 926** | | 1 | 1 unit | 102 | 0.010 |

[1] For cable boxes with molded cable see Industry Mall or Catalog FS 10.

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* You can order this quantity or a multiple thereof.

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## Selection and ordering data

### *Complete units*

1 or 3 contacts · 3 directions of approach · Degree of protection IP67

| | Version | Operation | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Molded-plastic enclosures in special width of 52 mm** | | | | | | | | | |
| 3SE 2 243 | **Lateral and front-end actuation**[1] | 6 mm stroke | | | | | | | |
| | • With M20 × 1.5 connecting thread | | | | | | | | |
| | - Slow-action contacts 1 NO + 2 NC | Extraction force 5 N | ➔ ► | **3SE2 243-0XX40** | | 1 | 1 unit | 102 | 0.140 |
| | | Extraction force 30 N | ➔ ► | **3SE2 243-0XX** | | 1 | 1 unit | 102 | 0.140 |
| | | With automatic ejection | ➔ ► | **3SE2 243-0XX30** | | 1 | 1 unit | 102 | 0.140 |
| | - Slow-action contacts 1 NC | Extraction force 5 N | ➔ ► | **3SE2 257-6XX40** | | 1 | 1 unit | 102 | 0.120 |
| | | Extraction force 30 N | ➔ ► | **3SE2 257-6XX** | | 1 | 1 unit | 102 | 0.120 |
| | | With automatic ejection | ➔ A | **3SE2 257-6XX30** | | 1 | 1 unit | 102 | 0.120 |
| | • With M16×1.5 connecting thread | | | | | | | | |
| | - Slow-action contacts 1 NO + 2 NC | Extraction force 5 N | ➔ A | **3SE2 243-0XX48** | | 1 | 1 unit | 102 | 0.140 |
| | | Extraction force 30 N | ➔ A | **3SE2 243-0XX18** | | 1 | 1 unit | 102 | 0.145 |
| | | With automatic ejection | ➔ A | **3SE2 243-0XX38** | | 1 | 1 unit | 102 | 0.140 |
| | - Slow-action contacts 1 NC | Extraction force 5 N | ➔ A | **3SE2 257-6XX48** | | 1 | 1 unit | 102 | 0.140 |
| | | Extraction force 30 N | ➔ A | **3SE2 257-6XX18** | | 1 | 1 unit | 102 | 0.140 |
| | | With automatic ejection | ➔ ► | **3SE2 257-6XX38** | | 1 | 1 unit | 102 | 0.140 |
| **Accessories** | | | | | | | | | |
| | **Actuators** | | | | | | | | |
| 3SX3 218 | • Standard actuators ($r_{min}$ = 150 mm), length 28 mm | | A | **3SX3 218** | | 1 | 1 unit | 102 | 0.020 |
| 3SX3 228 | • Universal radius actuator ($r_{min}$ = 45 mm), length 34 mm | | A | **3SX3 228** | | 1 | 1 unit | 102 | 0.025 |
| 3SX3 256 | • Radius actuator, adjustable radius, length 34 mm | | D | **3SX3 256** | | 1 | 1 unit | 102 | 0.020 |
| 3SX3 217 | • Ball locating, force adjustable up to 100 N by 2 screws, length 28 mm | | A | **3SX3 217** | | 1 | 1 unit | 102 | 0.035 |
| 3SX3 234 | • Actuator, length 34 mm, with dust protection and slit cover | | D | **3SX3 234** | | 1 | 1 unit | 102 | 0.035 |
| | **Accessories** | | | | | | | | |
| | • Slit cover (1 set = 3 units) | | D | **3SX3 233** | | 1 | 3 unit(s) | 102 | 0.005 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

[1] Supplied without actuator.

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* You can order this quantity or a multiple thereof.

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## General data

### Overview

The position switches with solenoid interlocking are exceptional safety-related devices which prevent an unforeseen or intentional opening of protective doors, protective grills or other covers as long as a dangerous situation is present (i. e. follow-on motion of the switched off machine).

The safety position switches with solenoid interlocking are comprised of a switch part with electromechanical interlock and a mechanical actuator which has to be ordered separately.

They are rugged protective devices that enable the greatest possible safety for man and machine.

The position switches with solenoid interlocking are offered in plastic or metal enclosures.
Dimensions (W × H × D):

- 3SE5 3: 54 mm × 185 mm × 43.5 mm,
- 3SE2 8: 90 mm × 100 mm (+ head 41.3 mm) × 45 mm.

#### *Operation*

The actuator head is included in the scope of supply. For actuation from four directions it can be adjusted through 4 × 90°. The 3SE5 3 switches can also be approached from above.

The actuators are not included in the scope of supply of the position switch and must be ordered separately from a choice of six versions to suit the application (see page 8/63).

Actuation data:

- Maximum actuating speed $v_{max}$ = 1.5 m/s
- Minimum actuating speed $v_{min}$ = 0.4 mm/s
- Minimum force in the direction of actuation $F_{min}$ = 30 N

The actuator is encoded. Simple overruling by hand or auxiliary devices is impossible.

Radius actuators

The position switches with radius actuators are particularly suitable for rotatable protective devices. The movable actuation key allows even small radii to be approached. Damage to the switch and the actuator due to inaccurate approach is prevented.

Locking devices

A high-grade steel locking device for attaching up to eight padlocks is available for even more safety (see page 8/63).

Dust protection

A rubber cap to protect the twist actuator from contamination is available for operation in dusty environments (see page 8/63).

#### *Solenoid interlocking*

There are two versions for locking the actuator:

- Spring-actuated lock (closed-circuit principle) with various release mechanisms
- Magnetic field lock (open-circuit principle)

The spring-actuated switch is equipped with an auxiliary release for emergency situations or setup mode. Available as options:

- Escape release or
- Emergency release

#### *Contact blocks*

The position switches with solenoid interlocking have one contact block each for:

- Monitoring the actuator or the position of the protective door
- Monitoring the position of the solenoid

The mechanical design of the switch corresponds to the requirements of the failsafe principle acc. to EN 1088.

#### *Optical signaling equipment*

The position switches with solenoid interlocking are available with an optional optical signaling device.

The signaling device indicates the switch position of the lock and the protective device optically by means of 2 LEDs on the front.

| Protective device | Solenoid interlocking | Display | Meaning |
|---|---|---|---|
| Closed | Released | | Actuator to be pulled |
| Closed | Locked | | Actuator locked |
| Open | Released | | Actuator pulled |

*Note:*
*The voltage of the LEDs at the monitored contacts must be the same as the operational voltage of the solenoid (same potential).*

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## Benefits

The new generation of 3SE5 3 position switches offers:

- More safety through higher locking forces:
  - 1300 N with plastic enclosure
  - 2600 N with metal enclosure
- Various release mechanisms: lock release, escape release and emergency release
- Two contact blocks each with three contacts as standard equipment, hence fewer versions needed
- Same dimensions for all enclosure variants: Plastic, metal or with integrated ASIsafe
- An extensive range of actuators
- An optional LED status display 24 V DC, 115 V AC or 230 V AC for all switch versions
- Device with ASIsafe electronics integrated in the enclosure (see page 8/82).

## Application

The position switches with solenoid interlocking are exceptional safety-related devices which prevent an unforeseen or intentional opening of protective doors, protective grills or other covers as long as a dangerous situation is present (i. e. follow-on motion of the switched off machine).

The safety position switches with solenoid interlocking have the following functions:

- Enabling the machine or process with closed and locked protective device
- Locking the machine or process with opened protective device
- Position monitoring of the protective device and solenoid interlocking

### *Standards*

The switches comply with the standards IEC 60947-1 (Low-Voltage Switchgear and Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Circuit Devices).

The mechanical design of the switch corresponds to the requirements of the failsafe principle acc. to EN 1088.

### *Approvals*

The switches are approved for use with locking devices acc. to EN 1088 and EN 292, Parts 1 and 2.

3SE5 3 position switches with solenoid interlocking bear the VDE test mark for tested acc. to GS-ET19 (Test Principles of the German Trade Association for Locking Devices with Electromagnetic Interlocks).

3SE2 8 metal-enclosed position switches with solenoid interlocking have been awarded a test certificate from the BIA (Berufsgenossenschaftliches Institut für Arbeitssicherheit).

Category 3 acc. to ISO 13849-1 (EN 954-1) can be attained with a position switch with solenoid interlocking if the corresponding failsafe evaluation units are selected and correctly installed, e. g. the 3TK28 safety relays or matching units from the ASIsafe, SIMATIC or SINUMERIK product ranges.

Category 4 can be achieved when using an additional position switch.

These switches are approved acc. to UL 508, UL 50 and UL 746-C.

### *Solenoid interlocking*

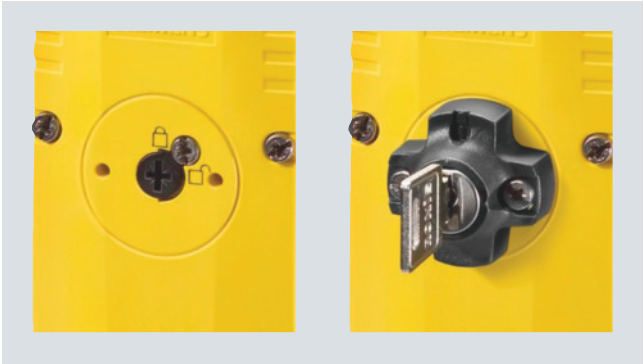
The separate actuator operates in a similar way to the coding of a key and protects against manipulation. It transmits the locking force to the protective device and helps to monitor its position.

## General data

There are two versions of locking:

Spring-actuated lock (closed-circuit principle)

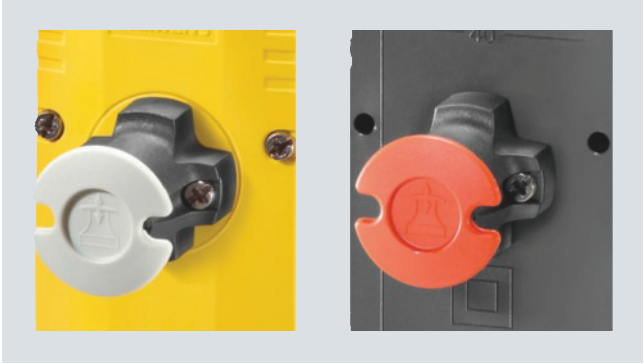
- In the standard version, the position switch locks by means of spring force and releases by means of electromagnetic force. In the case of voltage failure, it reliably prevents the protective device from opening when machine parts are still moving.
- The switch is equipped with an auxiliary release for emergency situations or setup mode.
- An auxiliary release which can be secured with a lock to prevent misuse is available as a version.



Auxiliary release — Auxiliary release with lock

The new 3SE5 3 position switches are also available with an escape release or emergency release.

- Personnel working inside the hazard zone can use the escape release feature to manually release the interlocking without tools from the escape side (hazardous area side) so that they can exit the hazard area. An intentional act (in this case pulling the gray actuator) is required to release the locking mechanism and restore the normal operating state.
- The emergency release enables someone in an emergency situation to manually release the interlock without tools from the access side (outside the hazardous area). Releasing the lock and restoring the normal operating state must require effort which is comparable to repair activity, in this case disassembly of the red actuator and resetting the mechanical lock.



Escape release from the front — Emergency release from the back

Magnetic field lock (open-circuit principle)

- The second version offers locking by means of electromagnetic force and release by means of spring force. This version has an advantage when it is necessary to quickly access the machine after a power failure occurs, or in the case of very short coasting times.

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## More information

| Type | | 3SE5 322 | 3SE5 312 | 3SE2 83, 3SE2 84 | |
|---|---|---|---|---|---|
| **General data** | | | | | |
| **Standards** | | IEC 60947-5-1, EN 60947-5-1 | | | |
| **Rated insulation voltage $U_i$** | V | 250 | | | |
| **Pollution degree** acc. to EN 60664-1 | | Class 3 | | | |
| **Rated impulse withstand voltage $U_{imp}$** | kV | 4 | | 6 | |
| **Rated operational voltage $U_e$** | | | | | |
| • DC | V | 24 | | 24 | |
| • AC 50/60 Hz | V | 230 | | 110 ... 130 | 230 |
| **Conventional free-air thermal current $I_{th}$** | A | 6 | | 10 | |
| **Rated operational current $I_e$** | | | | | |
| • With alternating current 50/60 Hz | | $I_e$/AC-15 or B300 | | $I_e$ /AC-12 | $I_e$ /AC-15 |
| - At 24 V | A | 6 | | 10 | 4 |
| - At 120 V | A | 3 | | 10 | 4 |
| - At 230 V | A | 1.5 | | 10 | 4 |
| • For direct current | | $I_e$/DC-13 or Q300 | | $I_e$/DC-12 | $I_e$/DC-13 |
| - At 24 V | A | 3 | | 10 | 3 |
| - At 125 V | A | 0.55 | | -- | -- |
| - At 250 V | A | 0.27 | | -- | -- |
| - At 60 V | | -- | | 5 | 1.5 |
| - At 110 V | | -- | | 2.5 | 0.7 |
| - At 220 V | | -- | | 1 | 0.3 |
| **Solenoid** | | | | | |
| • Locking force, max. | N | 1300 | 2600 | 1820 | |
| • Locking force acc. to GS-ET 19 | N | 1000 | 2000 | 1400 | |
| • Power consumption at $U_c$ | W | 3.5 | | 5.2 | |
| **Short-circuit protection**[1)] | | | | | |
| • With DIAZED fuse links, operational class gG | A | 6 | | 6 | |
| • With fuse links, quick | | -- | | 10 | |
| • With miniature circuit breaker, Char. C | A | 0.5 | | -- | |
| **Mechanical endurance** | | $1 \times 10^6$ operating cycles | | $1 \times 10^6$ operating cycles | |
| **Electrical endurance** | | | | | |
| • With 3RH11, 3RT10 16 to 3RT10 26 contactors | | $1 \times 10^6$ operating cycles | | $1 \times 10^6$ operating cycles | |
| • For utilization category AC-15 with interrupting of $I_e$ /AC-15 at 230 V | | $1 \times 10^5$ operating cycles | | $0.5 \times 10^6$ operating cycles | |
| • With utilization category DC-12/DC-13 | | For direct current depending on the loading of the switch | | | |
| **Switching frequency** with 3RH11, 3RT10 16 to 3RT10 26 contactors | | 6000 operating cycles/hour | | | |
| **Shock resistance** acc. to IEC 60068-2-27 | | 30 *g*/11 ms | | -- | |

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## Selection and ordering data

6 slow-action contacts · 5 directions of approach · Cable entry 3 × M20 × 1.5 · Degree of protection IP66/IP67
Locking force 1300 N (1000 N acc. to GS-ET 19)

| | Interlock[1] | LEDs | Solenoid, rated operational voltage | DT | Complete units Position monitoring: Actuators: 1 NO + 2 NC Solenoid: 1 NO + 2 NC | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|---|---|---|---|---|---|---|---|---|
| | | | V | | Order No. / Price per PU | | | | kg |
| **1300 N locking force · Enclosure width 54 mm** | | | | | | | | | |
| 3SE5 312-0SD2. | **Spring-actuated locks** | | | | | | | | |
| | • With auxiliary release | -- | 24 DC | ➔ ▶ | **3SE5 322-0SD21** | 1 | 1 unit | 102 | 0.590 |
| | | -- | 115 AC | ➔ B | **3SE5 322-0SD22** | 1 | 1 unit | 102 | 0.590 |
| | | -- | 230 AC | ➔ B | **3SE5 322-0SD23** | 1 | 1 unit | 102 | 0.590 |
| | | Yellow/Green | 24 DC | ➔ A | **3SE5 322-1SD21** | 1 | 1 unit | 102 | 0.590 |
| | | Yellow/Green | 115 AC | ➔ B | **3SE5 322-2SD22** | 1 | 1 unit | 102 | 0.590 |
| | | Yellow/Green | 230 AC | ➔ B | **3SE5 322-3SD23** | 1 | 1 unit | 102 | 0.590 |
| 3SE5 312-0SE2. | • With auxiliary release With lock | -- | 24 DC | ➔ B | **3SE5 322-0SE21** | 1 | 1 unit | 102 | 0.745 |
| | | -- | 115 AC | ➔ B | **3SE5 322-0SE22** | 1 | 1 unit | 102 | 0.745 |
| | | -- | 230 AC | ➔ B | **3SE5 322-0SE23** | 1 | 1 unit | 102 | 0.745 |
| | | Yellow/Green | 24 DC | ➔ B | **3SE5 322-1SE21** | 1 | 1 unit | 102 | 0.745 |
| | | Yellow/Green | 115 AC | ➔ B | **3SE5 322-2SE22** | 1 | 1 unit | 102 | 0.745 |
| | | Yellow/Green | 230 AC | ➔ B | **3SE5 322-3SE23** | 1 | 1 unit | 102 | 0.745 |
| 3SE5 312-0SF2. | • With escape release from the front | -- | 24 DC | ➔ B | **3SE5 322-0SF21** | 1 | 1 unit | 102 | 0.590 |
| | | -- | 115 AC | ➔ B | **3SE5 322-0SF22** | 1 | 1 unit | 102 | 0.590 |
| | | -- | 230 AC | ➔ B | **3SE5 322-0SF23** | 1 | 1 unit | 102 | 0.590 |
| | | Yellow/Green | 24 DC | ➔ B | **3SE5 322-1SF21** | 1 | 1 unit | 102 | 0.590 |
| | | Yellow/Green | 115 AC | ➔ B | **3SE5 322-2SF22** | 1 | 1 unit | 102 | 0.590 |
| | | Yellow/Green | 230 AC | ➔ B | **3SE5 322-3SF23** | 1 | 1 unit | 102 | 0.590 |
| 3SE5 312-0SG2. | • With escape release from the back and auxiliary release from the front | -- | 24 DC | ➔ B | **3SE5 322-0SG21** | 1 | 1 unit | 102 | 0.590 |
| | | -- | 115 AC | ➔ B | **3SE5 322-0SG22** | 1 | 1 unit | 102 | 0.590 |
| | | -- | 230 AC | ➔ B | **3SE5 322-0SG23** | 1 | 1 unit | 102 | 0.590 |
| | | Yellow/Green | 24 DC | ➔ B | **3SE5 322-1SG21** | 1 | 1 unit | 102 | 0.590 |
| | | Yellow/Green | 115 AC | ➔ B | **3SE5 322-2SG22** | 1 | 1 unit | 102 | 0.590 |
| | | Yellow/Green | 230 AC | ➔ B | **3SE5 322-3SG23** | 1 | 1 unit | 102 | 0.590 |
| | • With escape release from the back and auxiliary release with lock from the front | -- | 24 DC | ➔ B | **3SE5 322-0SH21** | 1 | 1 unit | 102 | 0.745 |
| 3SE5 312-0SJ2. | • With emergency release from the back and auxiliary release from the front | -- | 24 DC | ➔ B | **3SE5 322-0SJ21** | 1 | 1 unit | 102 | 0.745 |
| | | -- | 115 AC | ➔ B | **3SE5 322-0SJ22** | 1 | 1 unit | 102 | 0.745 |
| | | -- | 230 AC | ➔ B | **3SE5 322-0SJ23** | 1 | 1 unit | 102 | 0.745 |
| | | Yellow/Green | 24 DC | ➔ B | **3SE5 322-1SJ21** | 1 | 1 unit | 102 | 0.745 |
| | | Yellow/Green | 115 AC | ➔ B | **3SE5 322-2SJ22** | 1 | 1 unit | 102 | 0.745 |
| | | Yellow/Green | 230 AC | ➔ B | **3SE5 322-3SJ23** | 1 | 1 unit | 102 | 0.745 |
| 3SE5 312-0SB2. | **Magnetic field lock** | -- | 24 DC | ➔ ▶ | **3SE5 322-0SB21** | 1 | 1 unit | 102 | 0.590 |
| | | -- | 115 AC | ➔ B | **3SE5 322-0SB22** | 1 | 1 unit | 102 | 0.590 |
| | | -- | 230 AC | ➔ B | **3SE5 322-0SB23** | 1 | 1 unit | 102 | 0.590 |
| | | Yellow/Green | 24 DC | ➔ A | **3SE5 322-1SB21** | 1 | 1 unit | 102 | 0.590 |
| | | Yellow/Green | 115 AC | ➔ B | **3SE5 322-2SB22** | 1 | 1 unit | 102 | 0.590 |
| | | Yellow/Green | 230 AC | ➔ B | **3SE5 322-3SB23** | 1 | 1 unit | 102 | 0.590 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

[1] Supplied without actuator. Please order separately (see page 8/63).

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* You can order this quantity or a multiple thereof.

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## 3SE5, metal enclosures
## With locking force up to 2000 N

### Selection and ordering data

6 slow-action contacts · 5 directions of approach · Cable entry 3 × M20 × 1.5 · Degree of protection IP66/IP67
Locking force 2600 N (2000 N acc. to GS-ET 19)

| | Interlock[1] | LEDs | Solenoid, rated operational voltage | | DT | Complete units Position monitoring: Actuators: 1 NO + 2 NC Solenoid: 1 NO + 2 NC | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | V | | | Order No. / Price per PU | | | | kg |
| **2600 N locking force · Enclosure width 54 mm** | | | | | | | | | | |
| 3SE5 312-0SD1. | **Spring-actuated locks** | | | | | | | | | |
| | • With auxiliary release | -- | 24 DC | ➔ | ▶ | **3SE5 312-0SD11** | 1 | 1 unit | 102 | 1.030 |
| | | -- | 115 AC | ➔ | B | **3SE5 312-0SD12** | 1 | 1 unit | 102 | 1.030 |
| | | -- | 230 AC | ➔ | B | **3SE5 312-0SD13** | 1 | 1 unit | 102 | 1.030 |
| | | Yellow/Green | 24 DC | ➔ | B | **3SE5 312-1SD11** | 1 | 1 unit | 102 | 1.040 |
| | | Yellow/Green | 115 AC | ➔ | B | **3SE5 312-2SD12** | 1 | 1 unit | 102 | 1.040 |
| | | Yellow/Green | 230 AC | ➔ | B | **3SE5 312-3SD13** | 1 | 1 unit | 102 | 1.040 |
| 3SE5 312-0SE1. | • With auxiliary release With lock | -- | 24 DC | ➔ | B | **3SE5 312-0SE11** | 1 | 1 unit | 102 | 1.180 |
| | | -- | 115 AC | ➔ | B | **3SE5 312-0SE12** | 1 | 1 unit | 102 | 1.180 |
| | | -- | 230 AC | ➔ | B | **3SE5 312-0SE13** | 1 | 1 unit | 102 | 1.180 |
| | | | 48 AC/DC | ➔ | C | **3SE5 312-0SE14** | 1 | 1 unit | 102 | 1.180 |
| | | Yellow/Green | 24 DC | ➔ | B | **3SE5 312-1SE11** | 1 | 1 unit | 102 | 1.180 |
| | | Yellow/Green | 115 AC | ➔ | B | **3SE5 312-2SE12** | 1 | 1 unit | 102 | 1.180 |
| | | Yellow/Green | 230 AC | ➔ | B | **3SE5 312-3SE13** | 1 | 1 unit | 102 | 1.180 |
| 3SE5 312-0SF1. | • With escape release from the front | -- | 24 DC | ➔ | B | **3SE5 312-0SF11** | 1 | 1 unit | 102 | 1.180 |
| | | -- | 115 AC | ➔ | B | **3SE5 312-0SF12** | 1 | 1 unit | 102 | 1.180 |
| | | -- | 230 AC | ➔ | B | **3SE5 312-0SF13** | 1 | 1 unit | 102 | 1.180 |
| | | Yellow/Green | 24 DC | ➔ | B | **3SE5 312-1SF11** | 1 | 1 unit | 102 | 1.180 |
| | | Yellow/Green | 115 AC | ➔ | B | **3SE5 312-2SF12** | 1 | 1 unit | 102 | 1.180 |
| | | Yellow/Green | 230 AC | ➔ | B | **3SE5 312-3SF13** | 1 | 1 unit | 102 | 1.180 |
| 3SE5 312-0SG1. | • With escape release from the back and auxiliary release from the front | -- | 24 DC | ➔ | B | **3SE5 312-0SG11** | 1 | 1 unit | 102 | 1.175 |
| | | -- | 115 AC | ➔ | B | **3SE5 312-0SG12** | 1 | 1 unit | 102 | 1.175 |
| | | -- | 230 AC | ➔ | B | **3SE5 312-0SG13** | 1 | 1 unit | 102 | 1.175 |
| | | Yellow/Green | 24 DC | ➔ | B | **3SE5 312-1SG11** | 1 | 1 unit | 102 | 1.180 |
| | | Yellow/Green | 115 AC | ➔ | B | **3SE5 312-2SG12** | 1 | 1 unit | 102 | 1.180 |
| | | Yellow/Green | 230 AC | ➔ | B | **3SE5 312-3SG13** | 1 | 1 unit | 102 | 1.180 |
| | • With escape release from the back and auxiliary release with lock from the front | -- | 24 DC | ➔ | B | **3SE5 312-0SH11** | 1 | 1 unit | 102 | 1.180 |
| 3SE5 312-0SJ1. | • With emergency release from the back and auxiliary release from the front | -- | 24 DC | ➔ | B | **3SE5 312-0SJ11** | 1 | 1 unit | 102 | 1.180 |
| | | -- | 115 AC | ➔ | B | **3SE5 312-0SJ12** | 1 | 1 unit | 102 | 1.180 |
| | | -- | 230 AC | ➔ | B | **3SE5 312-0SJ13** | 1 | 1 unit | 102 | 1.180 |
| | | Yellow/Green | 24 DC | ➔ | B | **3SE5 312-1SJ11** | 1 | 1 unit | 102 | 1.180 |
| | | Yellow/Green | 115 AC | ➔ | B | **3SE5 312-2SJ12** | 1 | 1 unit | 102 | 1.180 |
| | | Yellow/Green | 230 AC | ➔ | B | **3SE5 312-3SJ13** | 1 | 1 unit | 102 | 0.925 |
| 3SE5 312-0SB1. | **Magnetic field lock** | -- | 24 DC | ➔ | ▶ | **3SE5 312-0SB11** | 1 | 1 unit | 102 | 1.030 |
| | | -- | 115 AC | ➔ | B | **3SE5 312-0SB12** | 1 | 1 unit | 102 | 1.030 |
| | | -- | 230 AC | ➔ | B | **3SE5 312-0SB13** | 1 | 1 unit | 102 | 1.030 |
| | | Yellow/Green | 24 DC | ➔ | B | **3SE5 312-1SB11** | 1 | 1 unit | 102 | 1.040 |
| | | Yellow/Green | 115 AC | ➔ | B | **3SE5 312-2SB12** | 1 | 1 unit | 102 | 1.040 |
| | | Yellow/Green | 230 AC | ➔ | B | **3SE5 312-3SB13** | 1 | 1 unit | 102 | 1.040 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

[1] Supplied without actuator. Please order separately (see page 8/63).

* You can order this quantity or a multiple thereof.

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## Selection and ordering data

| | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|
| **Actuators for 3SE5** | | | | | | | | |
| 3SE5 000-0AV01 | Standard actuators, length 75.6 mm | ► | **3SE5 000-0AV01** | | 1 | 1 unit | 102 | 0.040 |
| 3SE5 000-0AV02 | With vertical fixing, length 53 mm | A | **3SE5 000-0AV02** | | 1 | 1 unit | 102 | 0.070 |
| 3SE5 000-0AV03 | With transverse fixing, length 47 mm | A | **3SE5 000-0AV03** | | 1 | 1 unit | 102 | 0.070 |
| 3SE5 000-0AV04 | Radius actuators, length 51 mm | | | | | | | |
| | • Direction of approach from the left | A | **3SE5 000-0AV04** | | 1 | 1 unit | 102 | 0.070 |
| | • Direction of approach from the right | A | **3SE5 000-0AV06** | | 1 | 1 unit | 102 | 0.070 |
| 3SE5 000-0AV05 | Universal radius actuator, length 77 mm | A | **3SE5 000-0AV05** | | 1 | 1 unit | 102 | 0.090 |
| 3SE5 000-0AV07 | Universal radius actuators, heavy-duty | | | | | | | |
| | • Length 67 mm | A | **3SE5 000-0AV07-1AK2** | | 1 | 1 unit | 102 | 0.120 |
| | • Length 77 mm | A | **3SE5 000-0AV07** | | 1 | 1 unit | 102 | 0.090 |
| **Optional accessories for 3SE5** | | | | | | | | |
| 3SE5 000-0AV08-1AA2 | **Protective caps** made of black rubber for the actuator head, to protect the actuator openings from contamination | B | **3SE5 000-0AV08-1AA2** | | 1 | 1 unit | 102 | 0.010 |
| 3SE5 000-0AV08-1AA3 | **Blocking inserts**, high-grade steel, for twist actuator, for up to 8 padlocks | B | **3SE5 000-0AV08-1AA3** | | 1 | 1 unit | 102 | 0.065 |
| **Spare parts for 3SE5** | | | | | | | | |
| | **Spare keys** | B | **3SX5 100-1F** | | 1 | 1 unit | 102 | 0.015 |
| **Connections for 3SE5, 3SE2** | | | | | | | | |
| 3SY3 127 | **Connector sockets (4-pole), M12, fixed for M20 × 1.5**<br>For max 250 V, 4 A,<br>with connecting cable 5 × 0.25 mm²<br>Plastic, degree of protection IP67,<br>ambient temperature –40 to +85 °C | B | **3SY3 127** | | 1 | 1 unit | 102 | 0.010 |
| 3RX8 000 | **Cable boxes (4-pole), M12**<br>with terminal compartment, can be pre-assembled[1)] | A | **3RX8 000-0CB45** | | 1 | 1 unit | 574 | 0.015 |
| | **Angular cable boxes (4-pole), M12**<br>with terminal compartment, can be pre-assembled[1)] | A | **3RX8 000-0CC45** | | 1 | 1 unit | 574 | 0.015 |
| | **Connector sockets (5-pole), M12, fixed for M20 × 1.5**<br>For max 125 V, 4 A,<br>with connecting cable 5 × 0.25 mm²,<br>plastic, degree of protection IP67,<br>ambient temperature –40 to +85 °C | B | **3SY3 128** | | 1 | 1 unit | 102 | 0.010 |
| | **Cable boxes (5-pole), M12**<br>with terminal compartment, can be pre-assembled[1)] | A | **3RX8 000-0CB55** | | 1 | 1 unit | 574 | 0.016 |
| | **Angular cable boxes (5-pole), M12**<br>with terminal compartment, can be pre-assembled[1)] | A | **3RX8 000-0CC55** | | 1 | 1 unit | 574 | 0.016 |
| 3SX9 926 | **Cable glands M20 × 1.5**<br>Plastic | A | **3SX9 926** | | 1 | 1 unit | 102 | 0.010 |

[1)] For cable boxes with molded cable see Industry Mall or Catalog FS 10.

*** You can order this quantity or a multiple thereof.**

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# 3SE5, 3SE2, 3SE3 Position Switches

## With Solenoid Interlocking

### 3SE2, metal enclosures
### With locking force up to 1800 N

## Selection and ordering data

4 slow-action contacts · 4 directions of approach · Locking force 1800 N (1400 N acc. to GS-ET 19) · Degree of protection IP67

| Interlock/ Signaling equipment | Slow-action contacts Position monitoring: Actuators | Slow-action contacts Position monitoring: Solenoid | Solenoid, rated operational voltage V | | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Spring-actuated locks**[1] 6 mm stroke | | | | | | | | | | | |
| • Auxiliary release, sealable | 1 NO + 1 NC | 2 NC | 24 DC | ➔ | A | **3SE2 840-0XX00** | | 1 | 1 unit | 102 | 0.885 |
| | | | 110 AC | ➔ | A | **3SE2 842-0XX00** | | 1 | 1 unit | 102 | 0.890 |
| | | | 230 AC | ➔ | A | **3SE2 841-0XX00** | | 1 | 1 unit | 102 | 0.875 |
| • Auxiliary release with lock | 1 NO + 1 NC | 2 NC | 24 DC | ➔ | A | **3SE2 840-0XX01** | | 1 | 1 unit | 102 | 0.935 |
| | | | 110 AC | ➔ | A | **3SE2 842-0XX01** | | 1 | 1 unit | 102 | 0.925 |
| | | | 230 AC | ➔ | A | **3SE2 841-0XX01** | | 1 | 1 unit | 102 | 0.920 |
| **Magnetic field locks**[1] | | | | | | | | | | | |
| • Standard | 1 NO + 1 NC | 2 NC | 24 DC | ➔ | A | **3SE2 830-0XX00** | | 1 | 1 unit | 102 | 0.890 |
| | | | 110 AC | ➔ | A | **3SE2 832-0XX00** | | 1 | 1 unit | 102 | 0.855 |
| | | | 230 AC | ➔ | A | **3SE2 831-0XX00** | | 1 | 1 unit | 102 | 0.855 |
| **Spring-actuated locks**[1] 6 mm stroke | | | | | | | | | | | |
| • Auxiliary release, sealable | 2 NC | 2 NC | 24 DC | ➔ | A | **3SE2 840-6XX00** | | 1 | 1 unit | 102 | 0.885 |
| | | | 110 AC | ➔ | A | **3SE2 842-6XX00** | | 1 | 1 unit | 102 | 0.880 |
| | | | 230 AC | ➔ | A | **3SE2 841-6XX00** | | 1 | 1 unit | 102 | 0.880 |
| • Auxiliary release with lock | 2 NC | 2 NC | 24 DC | ➔ | A | **3SE2 840-6XX01** | | 1 | 1 unit | 102 | 0.965 |
| | | | 110 AC | ➔ | A | **3SE2 842-6XX01** | | 1 | 1 unit | 102 | 0.960 |
| | | | 230 AC | ➔ | A | **3SE2 841-6XX01** | | 1 | 1 unit | 102 | 0.925 |
| **Magnetic field locks**[1] | | | | | | | | | | | |
| • Standard | 2 NC | 2 NC | 24 DC | ➔ | A | **3SE2 830-6XX00** | | 1 | 1 unit | 102 | 0.885 |
| | | | 110 AC | ➔ | D | **3SE2 832-6XX00** | | 1 | 1 unit | 102 | 0.855 |
| | | | 230 AC | ➔ | A | **3SE2 831-6XX00** | | 1 | 1 unit | 102 | 0.850 |
| **Spring-actuated locks**[1] 6 mm stroke | | | | | | | | | | | |
| • Auxiliary release, sealable | 1 NO + 1 NC | 1 NO + 1 NC | 24 DC | ➔ | A | **3SE2 840-1XX00** | | 1 | 1 unit | 102 | 0.875 |
| | | | 110 AC | ➔ | A | **3SE2 842-1XX00** | | 1 | 1 unit | 102 | 0.890 |
| | | | 230 AC | ➔ | A | **3SE2 841-1XX00** | | 1 | 1 unit | 102 | 0.870 |
| • Auxiliary release, sealable, and with optical signaling equipment[2] | 1 NO + 1 NC | 1 NO + 1 NC | 24 DC | ➔ | A | **3SE2 840-1XX20** | | 1 | 1 unit | 102 | 0.905 |
| | | | 110 AC | ➔ | A | **3SE2 842-1XX20** | | 1 | 1 unit | 102 | 0.885 |
| | | | 230 AC | ➔ | A | **3SE2 841-1XX20** | | 1 | 1 unit | 102 | 0.880 |
| • Auxiliary release with lock and with optical signaling equipment[2] | 1 NO + 1 NC | 1 NO + 1 NC | 24 DC | ➔ | A | **3SE2 840-1XX32** | | 1 | 1 unit | 102 | 0.945 |
| | | | 110 AC | ➔ | A | **3SE2 842-1XX32** | | 1 | 1 unit | 102 | 0.935 |
| | | | 230 AC | ➔ | A | **3SE2 841-1XX32** | | 1 | 1 unit | 102 | 0.930 |
| **Magnetic field locks**[1] | | | | | | | | | | | |
| • Standard | 1 NO + 1 NC | 1 NO + 1 NC | 24 DC | ➔ | A | **3SE2 830-1XX00** | | 1 | 1 unit | 102 | 0.870 |
| | | | 110 AC | ➔ | A | **3SE2 832-1XX00** | | 1 | 1 unit | 102 | 0.855 |
| | | | 230 AC | ➔ | A | **3SE2 831-1XX00** | | 1 | 1 unit | 102 | 0.875 |
| • With optical signaling equipment[2] | 1 NO + 1 NC | 1 NO + 1 NC | 24 DC | ➔ | A | **3SE2 830-1XX20** | | 1 | 1 unit | 102 | 0.880 |
| | | | 110 AC | ➔ | A | **3SE2 832-1XX20** | | 1 | 1 unit | 102 | 0.865 |
| | | | 230 AC | ➔ | A | **3SE2 831-1XX20** | | 1 | 1 unit | 102 | 0.875 |
| **Actuators** | | | | | | | | | | | |
| • Standard actuator, length 79 mm | | | | | ▶ | **3SX3 197** | | 1 | 1 unit | 102 | 0.035 |
| - For approach from the left, length 132 mm | | | | | B | **3SX3 207** | | 1 | 1 unit | 102 | 0.045 |
| - With transverse fixing, length 50 mm | | | | | ▶ | **3SX3 206** | | 1 | 1 unit | 102 | 0.025 |
| - With vertical fixing, length 50 mm | | | | | A | **3SX3 306** | | 1 | 1 unit | 102 | 0.025 |
| • Universal radius actuator, length 80 mm | | | | | A | **3SX3 203** | | 1 | 1 unit | 102 | 0.120 |

With auxiliary release

With lock

With optical signaling equipment

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

[1] Supplied without actuator.

[2] On the version with optical signaling equipment the contacts are not electrically separated.

* You can order this quantity or a multiple thereof.

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## Overview

3SE5 hinge switches have the same enclosures as the standard switches (modular system).

Hinge switches

### *Design*

Enclosure sizes

The 3SE5 switches are available as complete units in two enclosure sizes:

- Plastic enclosures acc. to EN 50047, 31 mm wide, 1 cable entry
- Metal enclosures acc. to EN 50041, 40 mm wide, 1 cable entry

Enclosure versions

Various basic versions can be selected for the enclosures:

- Available with two or three-pole contact blocks designed as snap-action contacts
- Metal enclosures for explosion protection (ATEX) (see page 8/72)
- AS-Interface version with integrated ASIsafe electronics for all enclosure designs (see page 8/85)

For a description of the basic switches see page 8/14.

Operating mechanisms

The hinge switches are provided for mounting on hinges. The actuator head is included in the scope of supply. There are two versions:

- Operating mechanism with hollow shaft, inner diameter 8 mm, outer 12 mm
- Operating mechanism with solid shaft, diameter 10 mm

## Benefits

The 3SE5 hinge switches differ from the previous series through the following new characteristics:

- All actuators around the axis in increments of 22.5° (see picture on page 8/16).
- The new three-pole contact block 1 NO + 2 NC is available for all enclosure sizes (see picture on page 8/16).
- The plastic enclosure with a width of 31 mm has simple and fast wiring equipment which makes it possible to save from approx. 20 to 25 % of the time when connecting (see picture on page 8/16).
- The ASIsafe electric component is integrated for the versions with the AS-Interface connection (see page 8/73); an additional adapter is not required.

## Application

The hinge switches are used in those areas where the position of swivelable protective devices such as doors or flaps must be monitored. The position of the doors and hinge switches is converted into electric signals with the switches. The switches allows shutdown and signaling without delay in the event of a small opening angle through the snap-action contacts with an operating angle of 10°.

Devices are available with enclosure versions to suit the particular ambient conditions. Different control tasks can be performed with the best contact blocks suited for the particular purpose. Dimensions and fixing points of the enclosures are in accordance with EN 50041 or EN 50047 standards.

The devices are suitable for use in any climate.

### *Standards*

IEC 60947-5-1 or EN 60947-5-1.

The protective measure of "total insulation" by the molded-plastic enclosure is guaranteed by the use of molded-plastic screw-glands.

### *Safety position switches*

For controls acc. to IEC 60204-1 or EN 60204-1 the devices can be used as a safety position switch. To secure position switches against changes in their position, keyed techniques must be employed on installation.

### *Safety circuits*

IEC 60947-5-1 and EN 60947-5-1 require positive opening of the NC contacts, i. e. for the purposes of personal safety, the assured opening of NC contacts is expressly stipulated for the electrical equipment of machines in all safety circuits and marked acc. to IEC 60947-5-1 with the symbol ⊖.

Category 4 acc. to EN 954-1 can be attained with the 3SE5 hinge switches with ⊖ if the corresponding failsafe evaluation units are selected and correctly installed, e. g. the 3TK28 safety relays or matching devices from the ASIsafe, SIMATIC or SINUMERIK product ranges.

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# Hinge Switches

## 3SE5, plastic enclosures
## Enclosure width 31 mm according to EN 50047

### Selection and ordering data

#### *Complete units*

2 or 3 contacts · Degree of protection IP65 · Cable entry M20 × 1.5

| | Version | Snap-action contacts | | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **Plastic enclosures • Enclosure width 31 mm acc. to EN 50047** | | | | | | | | | | |
| With hollow shaft | **With hollow shaft** | | | | | | | | | |
| | Operating angle 10° | 1 NO + 1 NC | ➔ | B | **3SE5 232-0HU21** | | 1 | 1 unit | 102 | 0.080 |
| | Operating angle 10° | 1 NO + 2 NC | ➔ | B | **3SE5 232-0LU21** | | 1 | 1 unit | 102 | 0.080 |
| With solid shaft | **With solid shaft** | | | | | | | | | |
| | Operating angle 10° | 1 NO + 1 NC | ➔ | B | **3SE5 232-0HU22** | | 1 | 1 unit | 102 | 0.110 |
| | Operating angle 10° | 1 NO + 2 NC | ➔ | B | **3SE5 232-0LU22** | | 1 | 1 unit | 102 | 0.120 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

#### *Accessories/spare parts*

| | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|
| **Actuator heads** | | | | | | | | |
| Twist actuators with hollow shaft | **With hollow shaft** | | | | | | | |
| | Operating angle 10° | B | **3SE5 000-0AU21** | | 1 | 1 unit | 102 | 0.030 |
| Twist actuators with solid shaft | **With solid shaft** | | | | | | | |
| | Operating angle 10° | B | **3SE5 000-0AU22** | | 1 | 1 unit | 102 | 0.052 |

*Note:*
*The respective actuators are included in the scope of supply for the complete units.*

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* You can order this quantity or a multiple thereof.

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## Selection and ordering data

### *Complete units*

3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

| | Version | Snap-action contacts | DT | Complete units<br>Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Metal enclosures • Enclosure width 40 mm acc. to EN 50041** | | | | | | | | | |
| <br>With hollow shaft | **With hollow shaft**<br>Operating angle 10° | 1 NO + 2 NC ➔ | B | **3SE5 112-0LU21** | | 1 | 1 unit | 102 | 0.295 |
| <br>With solid shaft | **With solid shaft**<br>Operating angle 10° | 1 NO + 2 NC ➔ | B | **3SE5 112-0LU22** | | 1 | 1 unit | 102 | 0.315 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

### *Accessories/spare parts*

| | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|
| **Actuator heads** | | | | | | | | |
| <br>Twist actuators with hollow shaft | **With hollow shaft**<br>Operating angle 10° | B | **3SE5 000-0AU21** | | 1 | 1 unit | 102 | 0.030 |
| <br>Twist actuators with solid shaft | **With solid shaft**<br>Operating angle 10° | B | **3SE5 000-0AU22** | | 1 | 1 unit | 102 | 0.052 |

*Note:*
*The respective actuators are included in the scope of supply for the complete units.*

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* You can order this quantity or a multiple thereof.

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# Hinge Switches

## 3SE2, plastic enclosures With integrated hinge

### Overview

The 3SE2 283 hinge switches are particularly suitable for use in doors and flaps of machines that must be closed to ensure the safety of operating personnel. Their thin profile and compact design allow them to be directly mounted on a hinged protective cover and the stable frame.

### Benefits

- Easy mounting through use of versions with integrated hinge
- Versions with small operating angle of 4°
- Protection against personal injury provided by positively driven NC contacts acc. to IEC 60947-5-1
- Simultaneous shutdown and reporting by 1 NO + 2 NC contacts

### Selection and ordering data

3 contacts · Degree of protection IP65 · Cable entry 2 × (M20 × 1.5)

| Version | Slow-action contacts | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|
| **Plastic enclosures with integrated hinge** | | | | | | | | |
| **With integrated hinge** (delivered with additional hinge and fixing accessories) | Slow-action contacts | | | | | | | |
| • Aluminum hinge | | | | | | | | |
| - Operating angle 4° | 1 NO + 2 NC | ➔ A | **3SE2 283-0GA43** | | 1 | 1 unit | 102 | 0.425 |
| - Operating angle 4° | 3 NC | ➔ A | **3SE2 283-6GA43** | | 1 | 1 unit | 102 | 0.425 |
| - Operating angle 8° | 1 NO + 2 NC | ➔ D | **3SE2 283-0GA53** | | 1 | 1 unit | 102 | 0.420 |
| - Operating angle 8° | 3 NC | ➔ C | **3SE2 283-6GA53** | | 1 | 1 unit | 102 | 0.420 |
| • High-grade steel hinge | | | | | | | | |
| - Operating angle 4° | 1 NO + 2 NC | ➔ A | **3SE2 283-0GA44** | | 1 | 1 unit | 102 | 0.800 |
| - Operating angle 4° | 3 NC | ➔ C | **3SE2 283-6GA44** | | 1 | 1 unit | 102 | 0.800 |

3SE2 283

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

#### *Accessories/spare parts*

| Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|
| **Accessories** | | | | | | | |
| **Additional hinges** (delivered with fixing accessories) | | | | | | | |
| • Made of aluminum | ➔ D | **3SX3 225** | | 1 | 1 unit | 102 | 0.160 |
| • Made of high-grade steel | ➔ D | **3SX3 231** | | 1 | 1 unit | 102 | 0.330 |

3SX3 225



* You can order this quantity or a multiple thereof.

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## Overview

The position switch in the metal enclosure including the hinge switch and the switch with a separate actuator is also available in versions for operation in areas with combustible dust. They are not approved for areas with a gas explosion hazard.

To achieve the maximum possible safety in these areas, the legislators of most countries have drawn up requirements in the form of laws, regulations and standards which these switches comply with to the letter.

These switches comply with Directive 94/9/EC II2D (ATEX 95) of the European Union and are approved for Zone 21/22.

The switches have a grounding screw on the outside of the enclosure. The connection openings are closed with protective caps upon delivery.

See Chapter 20 "Appendix" --> "Standards and approvals" --> "Type overview of approved devices for potentially explosive areas (ATEX explosion protection)".

## Selection and ordering data

### *Complete units*

2 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

| | Version | Snap-action contacts | | DT | Complete units ☐ Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **Enclosure width 40 mm acc. to EN 50041** | | | | | | | | | | |
| | **With M20 × 1.5 connecting thread** | | | | | | | | | |
| | Snap-action contacts | 1 NO + 1 NC | | | | | | | | |
| Rounded plunger | • Rounded plungers, high-grade steel, with 3 mm overtravel | | ➔ | B | **3SE5 112-0CC02-1DA0** | | 1 | 1 unit | 102 | 0.290 |
| | • Roller plungers, high-grade steel roller, with 3 mm overtravel | | ➔ | B | **3SE5 112-0CD02-1DA0** | | 1 | 1 unit | 102 | 0.310 |
| | • Roller lever, high-grade steel lever, plastic roller | | ➔ | B | **3SE5 112-0CE03-1DA0** | | 1 | 1 unit | 102 | 0.300 |
| | • Angular roller lever, high-grade steel lever, plastic roller | | ➔ | B | **3SE5 112-0CF03-1DA0** | | 1 | 1 unit | 102 | 0.320 |
| Roller lever | • Spring rod, length 142.5 mm Plastic plunger | | | B | **3SE5 112-0CR01-1DA0** | | 1 | 1 unit | 102 | 0.315 |
| | • Twist lever, high-grade steel lever, plastic roller | | ➔ | B | **3SE5 112-0CH11-1DA0** | | 1 | 1 unit | 102 | 0.360 |
| | • Twist lever, adjustable length High-grade steel lever, plastic roller | | | B | **3SE5 112-0CH52-1DA0** | | 1 | 1 unit | 102 | 0.360 |
| | • Fork lever, high-grade steel lever, plastic roller | | ➔ | B | **3SE5 112-0CT13-1DA0** | | 1 | 1 unit | 102 | 0.360 |
| | • Rod actuators, aluminum rod, length 200 mm | | | B | **3SE5 112-0CH80-1DA0** | | 1 | 1 unit | 102 | 0.300 |
| | • Rod actuators, plastic rod, length 200 mm | | | B | **3SE5 112-0CH82-1DA0** | | 1 | 1 unit | 102 | 0.300 |
| **Enclosure width 56 mm** | | | | | | | | | | |
| | **With 3 x M20 x 1.5 connecting thread** | | | | | | | | | |
| | Snap-action contacts | 1 NO + 1 NC | | | | | | | | |
| Twist lever | • Rounded plunger, high-grade steel, with overtravel | | ➔ | B | **3SE5 122-0CC02-1DA0** | | 1 | 1 unit | 102 | 0.355 |
| | • Roller plunger, high-grade steel roller | | ➔ | B | **3SE5 122-0CD02-1DA0** | | 1 | 1 unit | 102 | 0.380 |
| | • Roller lever, high-grade steel lever, plastic roller | | ➔ | B | **3SE5 122-0CE03-1DA0** | | 1 | 1 unit | 102 | 0.375 |
| | • Angular roller lever, high-grade steel lever, plastic roller | | ➔ | B | **3SE5 122-0CF03-1DA0** | | 1 | 1 unit | 102 | 0.390 |
| | • Spring rod, length 142.5 mm Plastic plunger | | | B | **3SE5 122-0CR01-1DA0** | | 1 | 1 unit | 102 | 0.390 |
| | • Twist lever, high-grade steel lever, plastic roller | | ➔ | B | **3SE5 122-0CH11-1DA0** | | 1 | 1 unit | 102 | 0.410 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

*Note: If the device you require is not available as a complete unit, see "Modular system" on the next page.*

*** You can order this quantity or a multiple thereof.**

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# 3SE5, 3SE2, 3SE3 Position Switches

## For Explosion Protection (ATEX)

### 3SE5, metal enclosures
### Enclosure width 40 mm acc. to EN 50041 / 56 mm

*Modular system*

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

| | Version | Contacts | DT | Modular system Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Basic switches • Enclosure width 40 mm acc. to EN 50041** | | | | | | | | | |
| Basic switch | **With M20 × 1.5 connecting thread** | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC ➔ | B | **3SE5 112-0BA00-1DA0** | | 1 | 1 unit | 102 | 0.260 |
| | Snap-action contacts | 1 NO + 1 NC ➔ | B | **3SE5 112-0CA00-1DA0** | | 1 | 1 unit | 102 | 0.260 |
| | Slow-action contacts | 1 NO + 2 NC ➔ | B | **3SE5 112-0KA00-1DA0** | | 1 | 1 unit | 102 | 0.270 |
| | Snap-action contacts | 1 NO + 2 NC ➔ | B | **3SE5 112-0LA00-1DA0** | | 1 | 1 unit | 102 | 0.270 |
| | Slow-action contacts with make-before-break | 1 NO + 2 NC ➔ | B | **3SE5 112-0MA00-1DA0** | | 1 | 1 unit | 102 | 0.270 |
| | Slow-action contacts | 2 NO + 1 NC | B | **3SE5 112-0PA00-1DA0** | | 1 | 1 unit | 102 | 0.270 |
| **Basic switches • Enclosure width 56 mm** | | | | | | | | | |
| Basic switch | **With 3 x M20 x 1.5 connecting thread** | | | | | | | | |
| | Slow-action contacts | 1 NO + 1 NC ➔ | B | **3SE5 122-0BA00-1DA0** | | 1 | 1 unit | 102 | 0.325 |
| | Snap-action contacts | 1 NO + 1 NC ➔ | B | **3SE5 122-0CA00-1DA0** | | 1 | 1 unit | 102 | 0.325 |
| | Slow-action contacts | 1 NO + 2 NC ➔ | B | **3SE5 122-0KA00-1DA0** | | 1 | 1 unit | 102 | 0.335 |
| | Snap-action contacts | 1 NO + 2 NC ➔ | B | **3SE5 122-0LA00-1DA0** | | 1 | 1 unit | 102 | 0.335 |
| | Slow-action contacts with make-before-break | 1 NO + 2 NC ➔ | B | **3SE5 122-0MA00-1DA0** | | 1 | 1 unit | 102 | 0.335 |
| | Slow-action contacts | 2 NO + 1 NC | B | **3SE5 122-0PA00-1DA0** | | 1 | 1 unit | 102 | 0.335 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

*Note: For selection aid, see page 8/19.*

| | Version | Diameter mm | DT | Modular system Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Operating mechanisms** | | | | | | | | | |
| Rounded plunger | **Rounded plungers, type B, acc. to EN 50041** | | | | | | | | |
| | High-grade steel plungers, with 3 mm overtravel | | ➔ B | **3SE5 000-0AC02** | | 1 | 1 unit | 102 | 0.030 |
| Roller plunger | **Roller plungers, type C acc. to EN 50041** | | | | | | | | |
| | High-grade steel roller, with 3 mm overtravel | 13 | ➔ B | **3SE5 000-0AD02** | | 1 | 1 unit | 102 | 0.050 |
| Roller lever | **Roller levers** | | | | | | | | |
| | Metal lever, plastic roller | 22 | ➔ A | **3SE5 000-0AE01** | | 1 | 1 unit | 102 | 0.045 |
| | Metal lever, high-grade steel roller | 22 | ➔ B | **3SE5 000-0AE02** | | 1 | 1 unit | 102 | 0.065 |
| | High-grade steel lever, plastic roller | 22 | ➔ B | **3SE5 000-0AE03** | | 1 | 1 unit | 102 | 0.040 |
| | High-grade steel lever, high-grade steel roller | 22 | ➔ B | **3SE5 000-0AE04** | | 1 | 1 unit | 102 | 0.065 |
| Angular roller lever | **Angular roller levers** | | | | | | | | |
| | Metal lever, plastic roller | 22 | ➔ A | **3SE5 000-0AF01** | | 1 | 1 unit | 102 | 0.050 |
| | Metal lever, high-grade steel roller | 22 | ➔ B | **3SE5 000-0AF02** | | 1 | 1 unit | 102 | 0.075 |
| | High-grade steel lever, plastic roller | 22 | ➔ B | **3SE5 000-0AF03** | | 1 | 1 unit | 102 | 0.050 |
| | High-grade steel lever, high-grade steel roller | 22 | ➔ B | **3SE5 000-0AF04** | | 1 | 1 unit | 102 | 0.075 |
| Spring rod | **Spring rod** (for switches with snap-action contacts only) | | | | | | | | |
| | Plastic plunger: | | | | | | | | |
| | • Length 142.5 mm (spring 50 mm, plunger 50 mm) | | B | **3SE5 000-0AR01** | | 1 | 1 unit | 102 | 0.060 |
| | • Length 76 mm (spring 23.5 mm, plunger 10 mm) | | B | **3SE5 000-0AR03** | | 1 | 1 unit | 102 | 0.020 |
| | • Length 242.5 mm (spring 150 mm, plunger 50 mm) | | B | **3SE5 000-0AR04** | | 1 | 1 unit | 102 | 0.040 |
| | High-grade steel plunger: | | | | | | | | |
| | • Length 142.5 mm (spring 50 mm, plunger 50 mm) | | B | **3SE5 000-0AR02** | | 1 | 1 unit | 102 | 0.040 |

➔ Positively driven actuator, necessary in safety circuits.

* You can order this quantity or a multiple thereof.

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| Version | Diameter mm | DT | Modular system Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|
| **Twist actuators** | | | | | | | | |
| **Twist actuators**, metal (without lever) | | | | | | | | |
| • For twist levers and rod actuators, switching right and/or left, adjustable | | | | | | | | |
| - For enclosure width 40 and 56 mm | | ➔ A | **3SE5 000-0AH00** | | 1 | 1 unit | 102 | 0.070 |
| • For fork levers, latching | | ➔ B | **3SE5 000-0AT10** | | 1 | 1 unit | 102 | 0.070 |
| ***Levers for twist actuators*** | | | | | | | | |
| **Twist levers 27 mm, offset, type A, acc. to EN 50041** | | | | | | | | |
| Metal lever, plastic roller | 19 | ➔ A | **3SE5 000-0AA01** | | 1 | 1 unit | 102 | 0.015 |
| Metal lever, high-grade steel roller | 19 | ➔ A | **3SE5 000-0AA02** | | 1 | 1 unit | 102 | 0.035 |
| Metal lever, roller with ball bearing | 19 | ➔ B | **3SE5 000-0AA03** | | 1 | 1 unit | 102 | 0.020 |
| Metal lever, 2 plastic rollers | 19 | ➔ B | **3SE5 000-0AA04** | | 1 | 1 unit | 102 | 0.015 |
| Metal lever, plastic roller | 30 | ➔ B | **3SE5 000-0AA05** | | 1 | 1 unit | 102 | 0.015 |
| Metal lever, rubber roller | 50 | ➔ B | **3SE5 000-0AA08** | | 1 | 1 unit | 102 | 0.030 |
| High-grade steel lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA11** | | 1 | 1 unit | 102 | 0.015 |
| High-grade steel lever, high-grade steel roller | 19 | ➔ B | **3SE5 000-0AA12** | | 1 | 1 unit | 102 | 0.025 |
| **Twist levers 35 mm, offset** | | | | | | | | |
| Metal lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA15** | | 1 | 1 unit | 102 | 0.050 |
| **Twist levers 30 mm, straight**[1] | | | | | | | | |
| Metal lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA24** | | 1 | 1 unit | 102 | 0.020 |
| **Twist levers, adjustable length, with grid holes** | | | | | | | | |
| Metal lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA60** | | 1 | 1 unit | 102 | 0.025 |
| Metal lever, high-grade steel roller | 19 | ➔ B | **3SE5 000-0AA61** | | 1 | 1 unit | 102 | 0.040 |
| Metal lever, rubber roller | 50 | ➔ B | **3SE5 000-0AA68** | | 1 | 1 unit | 102 | 0.045 |
| High-grade steel lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA62** | | 1 | 1 unit | 102 | 0.025 |
| High-grade steel lever, high-grade steel roller | 19 | ➔ B | **3SE5 000-0AA63** | | 1 | 1 unit | 102 | 0.040 |
| **Twist levers, adjustable length** | | | | | | | | |
| Metal lever, plastic roller | 19 | A | **3SE5 000-0AA50** | | 1 | 1 unit | 102 | 0.025 |
| Metal lever, high-grade steel roller | 19 | B | **3SE5 000-0AA51** | | 1 | 1 unit | 102 | 0.035 |
| Metal lever, plastic roller | 30 | B | **3SE5 000-0AA55** | | 1 | 1 unit | 102 | 0.025 |
| Metal lever, rubber roller | 50 | B | **3SE5 000-0AA58** | | 1 | 1 unit | 102 | 0.040 |
| High-grade steel lever, plastic roller | 19 | B | **3SE5 000-0AA52** | | 1 | 1 unit | 102 | 0.025 |
| High-grade steel lever, high-grade steel roller | 19 | B | **3SE5 000-0AA53** | | 1 | 1 unit | 102 | 0.035 |
| **Fork lever** (for switches with snap-action contacts only) | | | | | | | | |
| 2 metal levers, 2 plastic rollers | 19 | ➔ B | **3SE5 000-0AT01** | | 1 | 1 unit | 102 | 0.050 |
| 2 metal levers, 2 high-grade steel rollers | 19 | ➔ B | **3SE5 000-0AT02** | | 1 | 1 unit | 102 | 0.050 |
| 2 high-grade steel levers, 2 plastic rollers | 19 | ➔ B | **3SE5 000-0AT03** | | 1 | 1 unit | 102 | 0.050 |
| 2 high-grade steel levers, 2 high-grade steel rollers | 19 | ➔ B | **3SE5 000-0AT04** | | 1 | 1 unit | 102 | 0.050 |
| **Rod actuators, type D, acc. to EN 50041** | | | | | | | | |
| Aluminum rod, length 200 mm | 6 | B | **3SE5 000-0AA80** | | 1 | 1 unit | 102 | 0.070 |
| Spring rod, length 200 mm | 6 | B | **3SE5 000-0AA81** | | 1 | 1 unit | 102 | 0.030 |
| Plastic rod, length 200 mm | 6 | B | **3SE5 000-0AA82** | | 1 | 1 unit | 102 | 0.020 |

Twist actuator

Twist lever

Twist levers, adjustable length

Fork lever

Rod actuator

➔ Positively driven actuator, necessary in safety circuits.

[1] Can be mounted on bead (180°).

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* You can order this quantity or a multiple thereof.

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## 3SE5, metal enclosures
## Enclosure width 40 mm acc. to EN 50041 / 56 mm

### *Position switches with separate actuator · Complete units*

5 directions of approach · 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

| | Version[1] | Contacts | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Enclosure width 40 mm acc. to EN 50041** | | | | | | | | | |
| With separate actuator | **With M20 × 1.5 connecting thread** Slow-action contacts | 1 NO + 2 NC ➔ | B | **3SE5 112-0QV10-1DA0** | | 1 | 1 unit | 102 | 0.315 |
| **Enclosure width 56 mm** | | | | | | | | | |
| With separate actuator | **With 3 x M20 x 1.5 connecting thread** Slow-action contacts | 1 NO + 2 NC ➔ | B | **3SE5 122-0QV10-1DA0** | | 1 | 1 unit | 102 | 0.250 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

[1] Supplied without actuator. Please order separately (see page 8/56).

### *Hinge switches · Complete units*

3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

| | Version | Snap-action contacts | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Enclosure width 40 mm acc. to EN 50041** | | | | | | | | | |
| With hollow shaft | **With hollow shaft**, Ø 8/12 mm Operating angle 10° | 1 NO + 2 NC ➔ | B | **3SE5 112-0LU21-1DA0** | | 1 | 1 unit | 102 | 0.295 |
| With solid shaft | **With solid shaft**, Ø = 10 mm Operating angle 10° | 1 NO + 2 NC ➔ | B | **3SE5 112-0LU22-1DA0** | | 1 | 1 unit | 102 | 0.315 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K, or positively driven actuator, can be used in safety circuits.





* You can order this quantity or a multiple thereof.

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## Overview

The 3SF1 position switches with safety-oriented communication can be directly connected using the AS-Interface bus system. The safety functions no longer have to be conventionally wired up.

With the 3SF1 position switches the ASIsafe electronics are integrated in the switch enclosure.

Examples of selection options in the modular system

### *Modular system*

The position switches of the 3SF1 1.4 and 3SF1 2.4 series are constructed from a modular system comprising different versions of the basic switch and an actuator which must be ordered separately. Thanks to the modular design of the switch the end user can select the right solution for his application from numerous versions and install it himself in a very short time.

### *Design*

The 3SF1 switches are available in four different enclosure sizes:

- Plastic enclosures acc. to EN 50047, 31 mm wide, with M12 plug
- Plastic enclosures, 50 mm wide, with M12 plug and M12 socket
- Metal enclosures acc. to EN 50041, 40 mm wide, with M12 plug
- Metal enclosures, 56 mm wide, with M12 plug and M12 socket

### *Display*

The switches have a status display with three LEDs:

- LED 1 (yellow): F-IN1
- LED 2 (yellow): F-IN2
- LED 3 (green/red): AS-i/FAULT

### *Connection*

Connection to the AS-Interface is by means of a 4-pole M12 connector socket (plastic version) connected to the yellow AS-Interface bus cable.

The wide enclosures (50 or 56 mm) also have an M12 socket for connecting a second position switch. Category 4 acc. to EN 954-1 is thus achieved.

## Benefits

The new generation of 3SF1 position switches offers:

- ASIsafe Electronics integrated in the enclosure, with low power consumption < 60 mA
- An extensive range of actuators
- Status display with three LEDs

## Application

With the standard position switches, mechanical positions of moved machine parts are converted into electrical signals. Through their modular and uniform design and large number of variants, the devices can meet practically all requirements in industry.

Devices are available with enclosure versions to suit the particular ambient conditions. Different control tasks can be performed with the best contact blocks suited for the particular purpose. And many different actuator variants are available to match the mechanical configuration of the moved machined parts. Dimensions, fixing points and characteristics are largely in accordance with the EN 50041 or EN 50047 standards.

The devices are suitable for use in any climate.

### *Standards*

The switches comply with the standards IEC 60947-1 (Low-Voltage Switchgear and Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Circuit Devices).

The mechanical design of the switch corresponds to the requirements of the failsafe principle acc. to EN 1088.

### *Approvals*

AS-Interface acc. to EN 50295 and IEC 62026-2.

With a 3SF1 position switch it is possible to achieve category 2 acc. to ISO 13849-1 (EN 954-1) or SIL 1 acc. to IEC 61508.

Categories 3 or 4 acc. to ISO 13849-1 (EN 954-1) or SIL 2 or 3 acc. to IEC 61508 can be achieved by using a second 3SE5 position switch.

The 3SF1 position switches are approved acc. to UL 508, UL 50 and UL 746-C.

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## Plastic enclosures
## Enclosure width 31 mm acc. to EN 50047 / 50 mm

### Selection and ordering data

*Modular system*

For the ASIsafe version of the position switch, the basic switch and actuator must be ordered separately.

1 or 2 contacts · 3 LEDs · Degree of protection IP65 (31 mm) or IP66/IP67 (50 mm) · M12 connector socket

| Version | Contacts | LEDs | DT | Modular system ◇ Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Basic switches (with rounded plunger[1]) · Enclosure width 31 mm acc. to EN 50047** | | | | | | | | | |
| **With teflon plunger** | | | | | | | | | |
| With M12 connector socket, 4-pole, channel 1 on NC contact, channel 2 on NC contact | | | | | | | | | |
| Slow-action contacts | 2 NC | 24 V DC ➔ | C | **3SF1 234-1KC05-1BA1** | | 1 | 1 unit | 121 | 0.170 |
| Snap-action contacts | 2 NC | 24 V DC ➔ | B | **3SF1 234-1LC05-1BA1** | | 1 | 1 unit | 121 | 0.170 |
| **Basic switches (with rounded plunger[1]) · Enclosure width 50 mm** | | | | | | | | | |
| **With teflon plunger** | | | | | | | | | |
| With M12 connector socket, 4-pole, channel 1 on NC contact, channel 2 on M12 socket, right | | | | | | | | | |
| Slow-action contacts | 1 NC | 24 V DC ➔ | C | **3SF1 244-1KC05-1BA2** | | 1 | 1 unit | 121 | 0.180 |
| Snap-action contacts | 1 NC | 24 V DC ➔ | C | **3SF1 244-1LC05-1BA2** | | 1 | 1 unit | 121 | 0.180 |

ASIsafe basic switch

ASIsafe basic switch

➔ Positive opening acc. to IEC 60947-5-1, Appendix K, or positively driven actuator, can be used in safety circuits.

[1] On the plastic version the basic switch is a complete unit with rounded plunger.

*Note: For selection aid, see page 8/19.*

*For 4-pole cable boxes see page 8/49.*

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* You can order this quantity or a multiple thereof.

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## Plastic enclosures
## Enclosure width 31 mm acc. to EN 50047 / 50 mm

| | Version | Roller diameter | DT | Modular system | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|---|---|---|---|---|---|---|---|
| | | mm | | Order No. / Price per PU | | | | kg |
| **Operating mechanisms** | | | | | | | | |
| Roller plunger | **Roller plunger, type C acc. to EN 50047** | | | | | | | |
| | Plastic rollers | 10 | ➔ A | **3SE5 000-0AD03** | 1 | 1 unit | 102 | 0.010 |
| | High-grade steel rollers | 10 | ➔ B | **3SE5 000-0AD04** | 1 | 1 unit | 102 | 0.010 |
| With central fixing | **Roller plungers with central fixing** | | | | | | | |
| | Plastic rollers | 10 | ➔ B | **3SE5 000-0AD10** | 1 | 1 unit | 102 | 0.035 |
| | High-grade steel rollers | 10 | ➔ B | **3SE5 000-0AD11** | 1 | 1 unit | 102 | 0.030 |
| Roller lever | **Roller lever, type E acc. to EN 50047** | | | | | | | |
| | Metal lever, plastic roller | 13 | ➔ A | **3SE5 000-0AE10** | 1 | 1 unit | 102 | 0.015 |
| | Metal lever, high-grade steel roller | 13 | ➔ B | **3SE5 000-0AE11** | 1 | 1 unit | 102 | 0.020 |
| | High-grade steel lever, plastic roller | 13 | ➔ B | **3SE5 000-0AE12** | 1 | 1 unit | 102 | 0.010 |
| | High-grade steel lever, high-grade steel roller | 13 | ➔ B | **3SE5 000-0AE13** | 1 | 1 unit | 102 | 0.055 |
| Angular roller lever | **Angular roller levers** | | | | | | | |
| | Metal lever, plastic roller | 13 | ➔ A | **3SE5 000-0AF10** | 1 | 1 unit | 102 | 0.015 |
| | Metal lever, high-grade steel roller | 13 | ➔ B | **3SE5 000-0AF11** | 1 | 1 unit | 102 | 0.013 |
| | High-grade steel lever, plastic roller | 13 | ➔ A | **3SE5 000-0AF12** | 1 | 1 unit | 102 | 0.015 |
| | High-grade steel lever, high-grade steel roller | 13 | ➔ B | **3SE5 000-0AF13** | 1 | 1 unit | 102 | 0.020 |
| **Twist actuators with lever** | | | | | | | | |
| Twist actuator | **Twist actuators**, plastic (without lever) | | | | | | | |
| | Switching right or left, adjustable | | ➔ A | **3SE5 000-0AK00** | 1 | 1 unit | 102 | 0.025 |
| | ***Levers for twist actuators*** | | | | | | | |
| Twist lever | **Twist levers, type A acc. to EN 50047** | | | | | | | |
| | Metal lever, plastic roller | 19 | ➔ A | **3SE5 000-0AA21** | 1 | 1 unit | 102 | 0.010 |
| | Metal lever, high-grade steel roller | 19 | ➔ B | **3SE5 000-0AA22** | 1 | 1 unit | 102 | 0.025 |
| | Metal lever, roller with ball bearing | 19 | ➔ B | **3SE5 000-0AA23** | 1 | 1 unit | 102 | 0.020 |
| | Metal lever, plastic roller | 30 | ➔ B | **3SE5 000-0AA25** | 1 | 1 unit | 102 | 0.010 |
| | High-grade steel lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA31** | 1 | 1 unit | 102 | 0.015 |
| | High-grade steel lever, high-grade steel roller | 19 | ➔ B | **3SE5 000-0AA32** | 1 | 1 unit | 102 | 0.022 |
| Twist lever, adjustable length | **Twist lever, adjustable length, with grid holes** | | | | | | | |
| | Metal lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA60** | 1 | 1 unit | 102 | 0.025 |
| | Metal lever, high-grade steel roller | 19 | ➔ B | **3SE5 000-0AA61** | 1 | 1 unit | 102 | 0.040 |
| | Metal lever, plastic roller | 50 | ➔ B | **3SE5 000-0AA67** | 1 | 1 unit | 102 | 0.025 |
| | Metal lever, rubber roller | 50 | ➔ B | **3SE5 000-0AA68** | 1 | 1 unit | 102 | 0.045 |
| | High-grade steel lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA62** | 1 | 1 unit | 102 | 0.025 |
| | High-grade steel lever, high-grade steel roller | 19 | ➔ B | **3SE5 000-0AA63** | 1 | 1 unit | 102 | 0.040 |

➔ Positively driven actuator, usable in safety circuits.

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* You can order this quantity or a multiple thereof.

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## Metal enclosures
## Enclosure width 40 mm acc. to EN 50041 / 56 mm

### Selection and ordering data

*Modular system*

For the ASIsafe version of the position switch, the basic switch and actuator must be ordered separately.

1 or 2 contacts · 3 LEDs · Degree of protection IP66/IP67 · M12 connector socket

| Version | Contacts | LEDs | | DT | Modular system Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **Basic switches · Enclosure width 40 mm acc. to EN 50041** | | | | | | | | | | |
| With M12 connector socket, 4-pole, channel 1 on NC contact, channel 2 on NC contact | | | | | | | | | | |
| Slow-action contacts | 2 NC | 24 V DC | ➔ | C | **3SF1 114-1KA00-1BA1** | | 1 | 1 unit | 121 | 0.400 |
| Snap-action contacts | 2 NC | 24 V DC | ➔ | B | **3SF1 114-1LA00-1BA1** | | 1 | 1 unit | 121 | 0.400 |
| **Basic switches · Enclosure width 56 mm** | | | | | | | | | | |
| With M12 connector socket, 4-pole, channel 1 on NC contact, channel 2 on M12 socket, right | | | | | | | | | | |
| Slow-action contacts | 1 NC | 24 V DC | ➔ | C | **3SF1 124-1KA00-1BA2** | | 1 | 1 unit | 121 | 0.470 |
| Snap-action contacts | 1 NC | 24 V DC | ➔ | C | **3SF1 124-1LA00-1BA2** | | 1 | 1 unit | 121 | 0.470 |

ASIsafe basic switch

ASIsafe basic switch

➔ Positive opening acc. to IEC 60947-5-1, Appendix K, or positively driven actuator, can be used in safety circuits.

1) On the version with a width of 31 mm the basic switch is a complete unit with rounded plunger.

*Note: For selection aid, see page 8/19.*

*For 4-pole cable boxes see page 8/49.*

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* You can order this quantity or a multiple thereof.

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| | Version | Roller diameter | DT | Modular system | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|---|---|---|---|---|---|---|---|
| | | mm | | Order No. / Price per PU | | | | kg |
| **Operating mechanisms** | | | | | | | | |
| Rounded plunger | **Rounded plungers, type B, acc. to EN 50041** | | | | | | | |
| | High-grade steel plungers, with 3 mm overtravel | | ➔ B | **3SE5 000-0AC02** | 1 | 1 unit | 102 | 0.030 |
| Roller plunger | **Roller plungers, type C acc. to EN 50041** | | | | | | | |
| | High-grade steel roller, with 3 mm overtravel | 13 | ➔ B | **3SE5 000-0AD02** | 1 | 1 unit | 102 | 0.050 |
| Roller lever | **Roller levers** | | | | | | | |
| | Metal lever, plastic roller | 22 | ➔ A | **3SE5 000-0AE01** | 1 | 1 unit | 102 | 0.045 |
| | Metal lever, high-grade steel roller | 22 | ➔ B | **3SE5 000-0AE02** | 1 | 1 unit | 102 | 0.065 |
| | High-grade steel lever, plastic roller | 22 | ➔ B | **3SE5 000-0AE03** | 1 | 1 unit | 102 | 0.040 |
| | High-grade steel lever, high-grade steel roller | 22 | ➔ B | **3SE5 000-0AE04** | 1 | 1 unit | 102 | 0.065 |
| Angular roller lever | **Angular roller levers** | | | | | | | |
| | Metal lever, plastic roller | 22 | ➔ A | **3SE5 000-0AF01** | 1 | 1 unit | 102 | 0.050 |
| | Metal lever, high-grade steel roller | 22 | ➔ B | **3SE5 000-0AF02** | 1 | 1 unit | 102 | 0.075 |
| | High-grade steel lever, plastic roller | 22 | ➔ B | **3SE5 000-0AF03** | 1 | 1 unit | 102 | 0.050 |
| | High-grade steel lever, high-grade steel roller | 22 | ➔ B | **3SE5 000-0AF04** | 1 | 1 unit | 102 | 0.075 |
| **Twist actuators with lever** | | | | | | | | |
| Twist actuator | **Twist actuators**, metal (without lever) | | | | | | | |
| | • For twist levers, switching right or left, adjustable | | | | | | | |
| | - For enclosure width 40 and 56 mm | | ➔ A | **3SE5 000-0AH00** | 1 | 1 unit | 102 | 0.070 |
| | • For fork levers, latching | | ➔ B | **3SE5 000-0AT10** | 1 | 1 unit | 102 | 0.070 |
| | ***Levers for twist actuators*** | | | | | | | |
| Twist lever | **Twist levers 27 mm, offset, type A, acc. to EN 50041** | | | | | | | |
| | Metal lever, plastic roller | 19 | ➔ A | **3SE5 000-0AA01** | 1 | 1 unit | 102 | 0.015 |
| | Metal lever, high-grade steel roller | 19 | ➔ A | **3SE5 000-0AA02** | 1 | 1 unit | 102 | 0.035 |
| | Metal lever, roller with ball bearing | 19 | ➔ B | **3SE5 000-0AA03** | 1 | 1 unit | 102 | 0.020 |
| | Metal lever, 2 plastic rollers | 19 | ➔ B | **3SE5 000-0AA04** | 1 | 1 unit | 102 | 0.015 |
| | Metal lever, plastic roller | 30 | ➔ B | **3SE5 000-0AA05** | 1 | 1 unit | 102 | 0.015 |
| | Metal lever, plastic roller | 50 | ➔ B | **3SE5 000-0AA07** | 1 | 1 unit | 102 | 0.020 |
| | Metal levers, rubber roller | 50 | ➔ B | **3SE5 000-0AA08** | 1 | 1 unit | 102 | 0.030 |
| | High-grade steel lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA11** | 1 | 1 unit | 102 | 0.015 |
| | High-grade steel lever, high-grade steel roller | 19 | ➔ B | **3SE5 000-0AA12** | 1 | 1 unit | 102 | 0.025 |
| Twist lever, adjustable length | **Twist levers 35 mm, offset** | | | | | | | |
| | Metal lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA15** | 1 | 1 unit | 102 | 0.050 |
| | **Twist levers 30 mm, straight**[1] | | | | | | | |
| | Metal lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA24** | 1 | 1 unit | 102 | 0.020 |
| | **Twist lever, adjustable length, with grid holes** | | | | | | | |
| | Metal lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA60** | 1 | 1 unit | 102 | 0.025 |
| | Metal lever, high-grade steel roller | 19 | ➔ B | **3SE5 000-0AA61** | 1 | 1 unit | 102 | 0.040 |
| | Metal lever, plastic roller | 50 | ➔ B | **3SE5 000-0AA67** | 1 | 1 unit | 102 | 0.025 |
| | Metal lever, rubber roller | 50 | ➔ B | **3SE5 000-0AA68** | 1 | 1 unit | 102 | 0.045 |
| | High-grade steel lever, plastic roller | 19 | ➔ B | **3SE5 000-0AA62** | 1 | 1 unit | 102 | 0.025 |
| | High-grade steel lever, high-grade steel roller | 19 | ➔ B | **3SE5 000-0AA63** | 1 | 1 unit | 102 | 0.040 |
| Fork lever | **Fork lever** (for switches with snap-action contacts only) | | | | | | | |
| | Metal lever, 2 plastic rollers | 19 | ➔ B | **3SE5 000-0AT01** | 1 | 1 unit | 102 | 0.050 |
| | Metal lever, 2 high-grade steel rollers | 19 | ➔ B | **3SE5 000-0AT02** | 1 | 1 unit | 102 | 0.050 |
| | High-grade steel lever, 2 plastic rollers | 19 | ➔ B | **3SE5 000-0AT03** | 1 | 1 unit | 102 | 0.050 |
| | High-grade steel lever, 2 high-grade steel rollers | 19 | ➔ B | **3SE5 000-0AT04** | 1 | 1 unit | 102 | 0.050 |

➔ Positively driven actuator, usable in safety circuits.

[1] Can be mounted on bead (180°).

*** You can order this quantity or a multiple thereof.**

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# 3SF1 AS-Interface Position Switches

## With Separate Actuator

## General data

### Overview

The 3SF1 position switches with safety-oriented communication can be directly connected using the AS-Interface bus system. The safety functions no longer have to be conventionally wired up.

With the 3SF1 position switches the ASIsafe electronics are integrated in the switch enclosure.

3SF1 position switches with separate actuator and with integrated ASIsafe electronics

3SF1 position switches with separate actuator have the same enclosures as the standard switches.

#### *Operation*

The actuator head is included in the scope of supply. For actuation from four directions it can be adjusted through 4 × 90°. The switches can also be approached from above.

The actuators are not included in the scope of supply of the position switch and must be ordered separately from a choice of six versions to suit the application.

The actuator is encoded. Simple overruling by hand or auxiliary devices is impossible.

A high-grade steel blocking insert for attaching up to eight padlocks is available for even more safety.

A rubber cap to protect the metal enclosure from contamination is available for operation in dusty environments.

#### *Display*

The switches have a status display with three LEDs:

- LED 1 (yellow): F-IN1
- LED 2 (yellow): F-IN2
- LED 3 (green/red): AS-i/FAULT

#### *Connection*

Connection to the AS-Interface is by means of a 4-pole M12 connector socket (plastic version) connected to the yellow AS-Interface bus cable.

The wide enclosures (50 or 56 mm) also have an M12 socket for connecting a second position switch. Category 4 acc. to EN 954-1 is thus achieved.

### Benefits

The new generation of 3SF1 position switches with separate actuator offers:

- ASIsafe Electronics integrated in the enclosure, with low power consumption < 60 mA
- An extensive range of actuators
- Status display with three LEDs

### Application

Position switches with separate actuator are used where the position of doors, covers or protective grills must be monitored for safety reasons.

The position switch can only be operated with the matching coded actuator. Simple overruling by hand or auxiliary devices is impossible.

Devices are available with enclosure versions to suit the particular ambient conditions. Different control tasks can be performed with the best contact blocks suited for the particular purpose. Dimensions, fixing points of the enclosure are in accordance with EN 50041 or EN 50047 standards.

The devices are suitable for use in any climate.

#### *Standards*

The switches comply with the standards IEC 60947-1 (Low-Voltage Switchgear and Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Circuit Devices).

The mechanical design of the switch corresponds to the requirements of the failsafe principle acc. to EN 1088.

#### *Approvals*

AS-Interface acc. to EN 50295 and IEC 62026-2.

With a 3SF1 position switch it is possible to achieve category 3 acc. to ISO 13849-1 (EN 954-1) or SIL 2 acc. to IEC 61508.

Category 4 acc. to ISO 13849-1 (EN 954-1) or SIL 3 acc. to IEC 61508 can be achieved by using a second 3SE5 position switch.

The 3SF1 position switches are approved acc. to UL 508, UL 50 and UL 746-C.

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## Overview

- Contacts: 1 or 2 slow-action contacts
- Status display with 3 LEDs 24 V DC;
  1: F–IN1, 2: F–IN2, 3: AS-i/FAULT
- Degree of protection IP65 (31 mm) or IP66/IP67 (50 mm)

## Selection and ordering data

| | Version[1)] | Contacts | DT | Complete units | | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Order No. | Price per PU | | | | kg |
| **Enclosure width 31 mm acc. to EN 50047** | | | | | | | | | |
| | **5 directions of approach**<br>With M12 connector socket, 4-pole;<br>channel 1 on NC contact,<br>channel 2 on NC contact<br>Slow-action contacts | 2 NC | ➔ B | **3SF1 234-1QV40-1BA1** | | 1 | 1 unit | 121 | 0.210 |
| **Enclosure width 50 mm** | | | | | | | | | |
| | **5 directions of approach**<br>With M12 connector socket, 4-pole;<br>channel 1 on NC,<br>channel 2 on M12 socket, right<br>Slow-action contacts | 1 NC | ➔ C | **3SF1 244-1QV40-1BA2** | | 1 | 1 unit | 121 | 0.220 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

1) Supplied without actuator. Please order separately.

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* You can order this quantity or a multiple thereof.

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# 3SF1 AS-Interface Position Switches

## With Separate Actuator

### Metal enclosures
### Enclosure width 40 mm acc. to EN 50041 / 56 mm

## Overview

- Contacts: 1 or 2 slow-action contacts
- Status display with 3 LEDs 24 V DC;
  1: F–IN1, 2: F–IN2, 3: AS-i/FAULT
- Degree of protection IP66/IP67

## Selection and ordering data

| | Version[1] | Contacts | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|
| **Enclosure width 40 mm acc. to EN 50041** | | | | | | | | | |
| | **5 directions of approach**<br>With M12 connector socket, 4-pole;<br>channel 1 on NC contact,<br>channel 2 on NC contact<br>Slow-action contacts | 2 NC | ➔ B | **3SF1 114-1QV10-1BA1** | | 1 | 1 unit | 121 | 0.550 |
| **Enclosure width 56 mm** | | | | | | | | | |
| | **5 directions of approach**<br>With M12 connector socket, 4-pole;<br>channel 1 on NC,<br>channel 2 on M12 socket, right<br>Slow-action contacts | 1 NC | ➔ C | **3SF1 124-1QV10-1BA2** | | 1 | 1 unit | 121 | 0.600 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

[1] Supplied without actuator. Please order separately.

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* You can order this quantity or a multiple thereof.

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## Overview

| | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|
| **Actuators** | | | | | | | | |
| | **Actuators** | | | | | | | |
| | • Standard actuators, length 75.6 mm | ► | **3SE5 000-0AV01** | | 1 | 1 unit | 102 | 0.040 |
| | • With vertical fixing, length 53 mm | A | **3SE5 000-0AV02** | | 1 | 1 unit | 102 | 0.070 |
| | • With transverse fixing, length 47 mm | A | **3SE5 000-0AV03** | | 1 | 1 unit | 102 | 0.070 |
| | • Radius actuator, left, length 51 mm, direction of approach from the left | A | **3SE5 000-0AV04** | | 1 | 1 unit | 102 | 0.070 |
| | • Radius actuator, length 51 mm, direction of approach from the right | A | **3SE5 000-0AV06** | | 1 | 1 unit | 102 | 0.070 |
| | • Universal radius actuator, length 77 mm | A | **3SE5 000-0AV05** | | 1 | 1 unit | 102 | 0.090 |
| | • Universal radius actuators, heavy-duty | | | | | | | |
| | - Length 67 mm | A | **3SE5 000-0AV07-1AK2** | | 1 | 1 unit | 102 | 0.120 |
| | - Length 77 mm | A | **3SE5 000-0AV07** | | 1 | 1 unit | 102 | 0.090 |
| **Optional accessories** | | | | | | | | |
| | **Protective caps** made of black rubber for the actuator head, to protect the actuator openings from contamination<br>(Only for enclosure width 40 or 56 mm) | B | **3SE5 000-0AV08-1AA2** | | 1 | 1 unit | 102 | 0.010 |
| | **Blocking inserts**, high-grade steel, for actuator head, for up to 8 padlocks | B | **3SE5 000-0AV08-1AA3** | | 1 | 1 unit | 102 | 0.065 |
| **Connections for 3SF1** | | | | | | | | |
| | **Cable boxes (4-pole), M12**<br>With terminal compartment, can be pre-assembled[1)] | A | **3RX8 000-0CB45** | | 1 | 1 unit | 574 | 0.015 |
| | **Angular cable boxes (4-pole), M12**<br>With terminal compartment, can be pre-assembled[1)] | A | **3RX8 000-0CC45** | | 1 | 1 unit | 574 | 0.015 |
| | **Coupling plugs (4-pole), M12**<br>With terminal compartment, can be pre-assembled | A | **3RX8 000-0CD45** | | 1 | 1 unit | 574 | 0.022 |
| | **Angular coupling plugs (4-pole), M12**<br>With terminal compartment, can be pre-assembled | A | **3RX8 000-0CE45** | | 1 | 1 unit | 574 | 0.022 |

1) For cable boxes with molded cable see Industry Mall or Catalog FS 10.

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* You can order this quantity or a multiple thereof.

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# 3SF1 AS-Interface Position Switches
## With Solenoid Interlocking

## General data

### Overview

The 3SF1 position switches with safety-oriented communication can be directly connected using the AS-Interface bus system. The safety functions no longer have to be conventionally wired up.

With the 3SF1 position switches the ASIsafe electronics are integrated in the switch enclosure.

3SF1 position switches with solenoid interlocking and integrated ASIsafe electronics

#### *Operation*

The actuator head is included in the scope of supply. For actuation from four directions it can be adjusted through 4 × 90°. The switches can also be approached from above.

The actuators are not included in the scope of supply of the position switch and must be ordered separately from a choice of six versions to suit the application.

The actuator is encoded. Simple overruling by hand or auxiliary devices is impossible.

A high-grade steel blocking insert for attaching up to eight padlocks is available for even more safety.

A rubber cap to protect the enclosure from contamination is available for operation in dusty environments.

#### *Solenoid interlocking*

There are two versions for locking the actuator:

- Spring-actuated lock (closed-circuit principle) with various release mechanisms
- Magnetic field lock (open-circuit principle)

For more explanations see page 8/59.

#### *Display*

The switches have a status display with four LEDs:

- LED 1 (green): AS-i
- LED 2 (red): FAULT
- LED 3 (yellow): F-IN1
- LED 4 (yellow): F-IN2

#### *Connection*

Connection to the AS-Interface is by means of a 4-pole M12 connector socket (plastic version) connected to the yellow AS-Interface bus cable (no additional supply of auxiliary power is required thanks to the low current consumption of the solenoid of max. 170 mA).

### Benefits

The new generation of 3SF1 3 position switches with solenoid interlocking offers:

- More safety through higher locking forces:
  - 1300 N for the plastic version
  - 2600 N for the metal version
- Various release mechanisms: lock release, escape release and emergency release
- ASIsafe Electronics integrated in the enclosure; connected through 4-pole M12 connector socket
- Current consumption of the solenoid max. 170 mA
- Two contact blocks as standard equipment, hence fewer versions needed
- Same dimensions for all enclosure variants: Plastic, metal
- An extensive range of actuators
- Status display with four LEDs

### Application

The position switches with solenoid interlocking are exceptional safety-related devices which prevent an unforeseen or intentional opening of protective doors, protective grills or other covers as long as a dangerous situation is present (i. e. follow-on motion of the switched off machine).

The safety position switches with solenoid interlocking have the following functions:

- Enabling the machine or process with closed and locked protective device
- Locking the machine or process with opened protective device
- Position monitoring of the protective device and solenoid interlocking

#### *Standards*

The switches comply with the standards IEC 60947-1 (Low-Voltage Switchgear and Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Circuit Devices).

The mechanical design of the switch corresponds to the requirements of the failsafe principle acc. to EN 1088.

#### *Approvals*

AS-Interface acc. to EN 50295 and IEC 62026-2.

The switches are approved for use with locking devices acc. to EN 1088 and EN 292, Parts 1 and 2.

3SE5 3 position switches with solenoid interlocking bear the VDE test mark for tested acc. to GS-ET19 (Test Principles of the German Trade Association for Locking Devices with Electromagnetic Interlocks).

With a 3SF1 3 position switch it is possible to achieve category 3 acc. to ISO 13849-1 (EN 954-1) or SIL 2 acc. to IEC 61508.

Category 4 acc. to ISO 13849-1 (EN 954-1) or SIL 3 acc. to IEC 61508 can be achieved by using a second 3SE5 position switch.

The 3SF1 position switches are approved acc. to UL 508, UL 50 and UL 746-C.

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## Overview

**5 directions of approach · Degree of protection IP66/IP67**

- Slow-action contacts:
  - Version -1BA1: ASIsafe channel 1 on 1 NC contact from the actuator and channel 2 on 1 NC contact from the solenoid
  - Version -1BA3: ASIsafe channel 1 on 1 NC contact from the actuator and channel 2 on 1 NC contact from the actuator
- Solenoid: Rated operational voltage 24 V DC
- Locking force 1300 N (1000 N acc. to GS-ET 19)
- Status display with 4 LEDs 24 V DC; 1: AS-i, 2: FAULT, 3: F–IN1, 4: F–IN2

## Selection and ordering data

| | Interlock[1] | Contacts Actuators/Solenoids | | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **1300 N locking force · Enclosure width 54 mm** | | | | | | | | | | |
| 3SF1 324-1SD21-... | **Spring-actuated locks** | | | | | | | | | |
| | • With auxiliary release | 1 NC/1 NC | ➔ | B | **3SF1 324-1SD21-1BA1** | | 1 | 1 unit | 121 | 0.600 |
| | • With auxiliary release | 2 NC/-- | ➔ | C | **3SF1 324-1SD21-1BA3** | | 1 | 1 unit | 121 | 0.600 |
| | • With auxiliary release with lock | 1 NC/1 NC | ➔ | C | **3SF1 324-1SE21-1BA1** | | 1 | 1 unit | 121 | 0.760 |
| 3SF1 324-1SF21-... | • With escape release from the front | 1 NC/1 NC | ➔ | C | **3SF1 324-1SF21-1BA1** | | 1 | 1 unit | 121 | 0.620 |
| | • With escape release from the back and auxiliary release from the front | 1 NC/1 NC | ➔ | C | **3SF1 324-1SG21-1BA1** | | 1 | 1 unit | 121 | 0.640 |
| | • With emergency release from the back and auxiliary release from the front | 1 NC/1 NC | ➔ | C | **3SF1 324-1SJ21-1BA1** | | 1 | 1 unit | 121 | 0.650 |
| 3SF1 324-1SB21-... | **Magnetic field lock** | 1 NC/1 NC | ➔ | C | **3SF1 324-1SB21-1BA1** | | 1 | 1 unit | 121 | 0.600 |
| | | 2 NC/-- | ➔ | C | **3SF1 324-1SB21-1BA3** | | 1 | 1 unit | 121 | 0.600 |
| **Actuators** | | | | | | | | | | |
| | **Actuators** | | | | | | | | | |
| | • Standard actuators, length 75.6 mm | | | ► | **3SE5 000-0AV01** | | 1 | 1 unit | 102 | 0.040 |
| | • With vertical fixing, length 53 mm | | | A | **3SE5 000-0AV02** | | 1 | 1 unit | 102 | 0.070 |
| | • With transverse fixing, length 47 mm | | | A | **3SE5 000-0AV03** | | 1 | 1 unit | 102 | 0.070 |
| | • Radius actuators, length 51 mm | | | | | | | | | |
| | - Direction of approach from the left | | | A | **3SE5 000-0AV04** | | 1 | 1 unit | 102 | 0.070 |
| | - Direction of approach from the right | | | A | **3SE5 000-0AV06** | | 1 | 1 unit | 102 | 0.070 |
| | • Universal radius actuator, length 77 mm | | | A | **3SE5 000-0AV05** | | 1 | 1 unit | 102 | 0.090 |
| | • Universal radius actuators, heavy-duty | | | | | | | | | |
| | - Length 67 mm | | | A | **3SE5 000-0AV07-1AK2** | | 1 | 1 unit | 102 | 0.120 |
| | - Length 77 mm | | | A | **3SE5 000-0AV07** | | 1 | 1 unit | 102 | 0.090 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

[1] Supplied without actuator. Please order separately.

For 4-pole cable boxes and optional accessories see page 8/63.

*** You can order this quantity or a multiple thereof.**

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# 3SF1 AS-Interface Position Switches

## With Solenoid Interlocking

### Metal enclosures
### With locking force greater than 2000 N

## Overview

**5 directions of approach · Degree of protection IP66/IP67**

- Slow-action contacts:
  ASIsafe channel 1 on 1 NC contact from the actuator and channel 2 on 1 NC contact from the solenoid
- Solenoid: Rated operational voltage 24 V DC
- Locking force 2600 N (2000 N acc. to GS-ET 19)
- Status display with 4 LEDs 24 V DC;
  1: AS-i, 2: FAULT, 3: F–IN1, 4: F–IN2

## Selection and ordering data

| | Interlock[1] | Contacts Actuators/Solenoids | | DT | Complete units Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|
| **2600 N locking force · Enclosure width 54 mm** | | | | | | | | | | |
| 3SF1 314-1SD21-... | **Spring-actuated locks** | | | | | | | | | |
| | • With auxiliary release | 1 NC/1 NC | ➔ | C | **3SF1 314-1SD11-1BA1** | | 1 | 1 unit | 121 | 1.060 |
| | • With auxiliary release with lock | 1 NC/1 NC | ➔ | C | **3SF1 314-1SE11-1BA1** | | 1 | 1 unit | 121 | 1.220 |
| 3SF1 314-1SF21-,,, | • With escape release from the front | 1 NC/1 NC | ➔ | C | **3SF1 314-1SF11-1BA1** | | 1 | 1 unit | 121 | 1.060 |
| | • With escape release from the back and auxiliary release from the front | 1 NC/1 NC | ➔ | C | **3SF1 314-1SG11-1BA1** | | 1 | 1 unit | 121 | 1.080 |
| | • With emergency release from the back and auxiliary release from the front | 1 NC/1 NC | ➔ | C | **3SF1 314-1SJ11-1BA1** | | 1 | 1 unit | 121 | 1.100 |
| 3SF1 314-1BF21-,,, | **Magnetic field lock** | 1 NC/1 NC | ➔ | C | **3SF1 314-1SB11-1BA1** | | 1 | 1 unit | 121 | 1.060 |
| **Actuators** | | | | | | | | | | |
| | **Actuators** | | | | | | | | | |
| | • Standard actuators, length 75.6 mm | | | ▶ | **3SE5 000-0AV01** | | 1 | 1 unit | 102 | 0.040 |
| | • With vertical fixing, length 53 mm | | | A | **3SE5 000-0AV02** | | 1 | 1 unit | 102 | 0.070 |
| | • With transverse fixing, length 47 mm | | | A | **3SE5 000-0AV03** | | 1 | 1 unit | 102 | 0.070 |
| | • Radius actuators, length 51 mm | | | | | | | | | |
| | - Direction of approach from the left | | | A | **3SE5 000-0AV04** | | 1 | 1 unit | 102 | 0.070 |
| | - Direction of approach from the right | | | A | **3SE5 000-0AV06** | | 1 | 1 unit | 102 | 0.070 |
| | • Universal radius actuator, length 77 mm | | | A | **3SE5 000-0AV05** | | 1 | 1 unit | 102 | 0.090 |
| | • Universal radius actuators, heavy-duty | | | | | | | | | |
| | - Length 67 mm | | | A | **3SE5 000-0AV07-1AK2** | | 1 | 1 unit | 102 | 0.120 |
| | - Length 77 mm | | | A | **3SE5 000-0AV07** | | 1 | 1 unit | 102 | 0.090 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

[1] Supplied without actuator. Please order separately.

For 4-pole cable boxes and optional accessories see page 8/63.

* You can order this quantity or a multiple thereof.

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## Overview

The 3SF1 hinge switches with safety-oriented communication can be directly connected using the AS-Interface bus system. The safety functions no longer have to be conventionally wired up.

With the 3SF1 position switches the ASIsafe electronics are integrated in the switch enclosure.

The hinge switches are provided for mounting on hinges. There are two actuator variants here:
- Hollow shaft, inner diameter 8 mm, outer 12 mm
- Solid shaft, diameter 10 mm

For the ASIsafe version of the hinge switch, the basic switch and twist actuator must be ordered separately. The basic switches correspond to the position switches of the standard version (only use versions with snap-action contacts).

The standards and approvals are the same as for the 3SF1 standard switches (see page 8/73).

## Selection and ordering data

### *Modular system*

1 or 2 contacts · 3 LEDs · Degree of protection IP65 (31 mm) or IP66/IP67 (50 mm) · M12 connector socket

| | Version | Contacts | LEDs | | DT | Modular system<br>Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Basic switches · Enclosure width 31 mm acc. to EN 50047** | | | | | | | | | | | |
| <br>ASIsafe basic switch | **With teflon plunger, with M12 connector socket**, 4-pole<br>channel 1 on NC contact,<br>channel 2 on NC contact<br>Snap-action contacts | 2 NC | 24 V DC | ➔ | B | **3SF1 234-1LC05-1BA1** | | 1 | 1 unit | 121 | 0.170 |
| **Basic switches · Enclosure width 50 mm** | | | | | | | | | | | |
| <br>ASIsafe basic switch | **With teflon plunger, with M12 connector socket**, 4-pole<br>channel 1 on NC contact,<br>channel 2 on M12 socket, right<br>Snap-action contacts | 1 NC | 24 V DC | ➔ | C | **3SF1 244-1LC05-1BA2** | | 1 | 1 unit | 121 | 0.180 |
| **Actuator heads** | | | | | | | | | | | |
| <br>Twist actuator with hollow shaft | **With hollow shaft**<br>Operating angle 10° | | | | B | **3SE5 000-0AU21** | | 1 | 1 unit | 102 | 0.030 |
| <br>Twist actuator with solid shaft | **With solid shaft**<br>Operating angle 10° | | | | B | **3SE5 000-0AU22** | | 1 | 1 unit | 102 | 0.052 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

For 4-pole cable boxes see page 8/49.

* You can order this quantity or a multiple thereof.

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## Metal enclosures
## Enclosure width 40 mm acc. to EN 50041 / 56 mm

### Overview

The 3SF1 hinge switches with safety-oriented communication can be directly connected using the AS-Interface bus system. The safety functions no longer have to be conventionally wired up.

With the 3SF1 position switches the ASIsafe electronics are integrated in the switch enclosure.

The hinge switches are provided for mounting on hinges. There are two actuator variants here:
- Hollow shaft, inner diameter 8 mm, outer 12 mm
- Solid shaft, diameter 10 mm

For the ASIsafe version of the hinge switch, the basic switch and twist actuator must be ordered separately. The basic switches correspond to the position switches of the standard version (only use versions with snap-action contacts).

The standards and approvals are the same as for the 3SF1 standard switches (see page 8/73).

### Selection and ordering data

*Modular system*

1 or 2 contacts · 3 LEDs · Degree of protection IP66/IP67 · M12 connector socket

| | Version | Contacts | LEDs | | DT | Modular system ◇ Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Basic switches · Enclosure width 40 mm acc. to EN 50041** | | | | | | | | | | | |
| ASIsafe basic switch | **With M12 connector socket**, 4-pole<br>Channel 1 on NC contact, channel 2 on NC contact<br>Snap-action contacts | 2 NC | 24 V DC | ➔ | B | **3SF1 114-1LA00-1BA1** | | 1 | 1 unit | 121 | 0.400 |
| **Basic switches · Enclosure width 56 mm** | | | | | | | | | | | |
| ASIsafe basic switch | **With M12 connector socket**, 4-pole<br>Channel 1 on NC contact, channel 2 on M12 socket, right<br>Snap-action contacts | 1 NC | 24 V DC | ➔ | C | **3SF1 124-1LA00-1BA2** | | 1 | 1 unit | 121 | 0.470 |
| **Actuator heads** | | | | | | | | | | | |
| Twist actuator with hollow shaft | **Hollow shaft**<br>Operating angle 10° | | | | B | **3SE5 000-0AU21** | | 1 | 1 unit | 102 | 0.030 |
| Twist actuator with solid shaft | **Solid shaft**<br>Operating angle 10° | | | | B | **3SE5 000-0AU22** | | 1 | 1 unit | 102 | 0.052 |

➔ Positive opening acc. to IEC 60947-5-1, Appendix K.

For 4-pole cable boxes see page 8/49.

* You can order this quantity or a multiple thereof.

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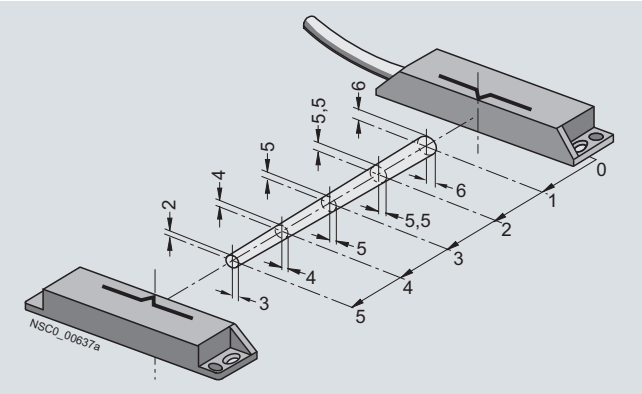
## Overview

Switching magnets and contact blocks

A magnetically operated switch is comprised of a coded switching magnet and a contact block (sensor unit). Evaluation requires a safety relay or connection to a bus system.

### *3SE6 806 safety relay*

Up to six protective devices (sensors) can be connected to the safety relay.




Enabling range (example)

The device has six current-sourcing semiconductor outputs (Y1 ... Y6), which report the state of the connected protective devices.

The 3SE6 806 safety relay has two floating enabling circuits (safe circuits) as NO contact circuits and one floating signaling circuit as a NC circuit. The number of enabling circuits can be increased by adding one or more 3TK28 30 expansion modules.

## Application

SIRIUS 3SE6 magnetically operated switches are designed for mounting on movable protective guards (hoods, hinge switches, doors, etc.). Evaluation can be performed by means of a safety relay or through connection to a bus system.

The 3SE6 6 non-contact, magnetically operated safety switches stand out due to their enclosed design with degree of protection IP67. They are particularly suitable therefore for areas exposed to contamination, cleaning or disinfecting.

A magnetic monitoring system comprises one or more magnetically operated switches and an evaluation unit, e. g. a safety relay. When contact blocks 1 NO + 1 NC are used the 3SE6 806 safety relay provides a high degree of protection against manipulation and can be installed in safety circuits up to Category 3 acc. to ISO 13849-1 (EN 954-1).

### *Combination of monitoring unit and magnetically operated switch*

| **Monitoring units** | | **Magnetically operated switches (contact block + switching magnet)** | | | | **Achievable category** (EN 954-1)/ **Performance level** (EN ISO 13849-1) |
|---|---|---|---|---|---|---|
| | | 1 NC + 1 NO | | | 2 NC | |
| | | 3SE6 605-1BA<br>3SE6 704-1BA | 3SE6 605-2BA<br>3SE6 704-2BA | 3SE6 605-3BA<br>3SE6 704-3BA | 3SE6 604-2BA<br>3SE6 704-2BA | |
| **Relay outputs** | | | | | | |
| SIRIUS safety relays, 6-fold | 3SE6 806-2CD00 | ✔ | ✔ | ✔ | -- | **Cat. 3** |
| SIRIUS safety relays | 3TK28 26 | ✔ | ✔ | ✔ | ✔ | **Cat. 4/e** |
| **Solid-state outputs** | | | | | | |
| SIRIUS safety relays | 3TK28 40 | -- | -- | -- | ✔ | **Cat. 3/d** |
| | 3TK28 41, 3TK28 42, 3TK28 45 | -- | -- | -- | ✔ | **Cat. 4/e** |
| SIRIUS safety relays with contactor relay | 3TK28 50, 3TK28 51, 3TK28 52 | -- | -- | -- | ✔ | **Cat. 3/d** |
| | 3TK28 53 | -- | -- | -- | ✔ | **Cat. 4/e** |
| SIRIUS safe load feeders | 3RA71 0. | -- | -- | -- | ✔ | **Cat. 3** |
| | 3RA71 1. | -- | -- | -- | ✔ | **Cat. 4** |
| ASIsafe compact safety modules | 3RK1 205, 3RK1 405 | -- | -- | -- | ✔ | **Cat. 4** |
| SIMATIC S7-31xF-2 DP or SIMATIC ET 200M | SM 326 F, 24 DI, 24 V DC, SM 326 F, 8 DI, NAMUR | ✔ | ✔ | ✔ | ✔ | **Cat. 4** |
| SIMATIC ET 200S PROFIsafe | 4/8 F-DI / 3 F-DO, 24 V DC | ✔ | ✔ | ✔ | ✔ | **Cat. 3** |
| | 4/8 F DI, 24 V DC | ✔ | ✔ | ✔ | ✔ | **Cat. 4** |
| SIMATIC ET 200eco | 4/8 F DI, 24 V DC | ✔ | ✔ | ✔ | ✔ | **Cat. 4** |
| SIMATIC ET 200pro | 8/16 F-DI, 24 V DC, 4/8 F-DI / 4 F-DO 2 A, 24 V DC, F-Switch | ✔ | ✔ | ✔ | ✔ | **Cat. 4** |
| Modular Safety System | 3RK3 | ✔ | ✔ | ✔ | ✔ | **Cat. 4/e** |

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## Magnetic monitoring systems

### Selection and ordering data

| | Version | Size | Contacts | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | | | | | | | | kg |
| **Round sensor units** | | | | | | | | | | |
| | **Switching magnets (coded)** | M30 | | A | **3SE6 704-1BA** | | 1 | 1 unit | 102 | 0.035 |
| | **Contact blocks** | | | | | | | | | |
| | • With cable, 3 m | M30 | 1 NO + 1 NC | A | **3SE6 605-1BA** | | 1 | 1 unit | 102 | 0.165 |
| | • With M12 plug, 4-pole | M30 | 1 NO + 1 NC | C | **3SE6 605-1BA02** | | 1 | 1 unit | 102 | 0.040 |
| **Rectangular sensor units** | | | | | | | | | | |
| | **Switching magnets (coded)** | 25 × 88 | | A | **3SE6 704-2BA** | | 1 | 1 unit | 102 | 0.027 |
| | **Contact blocks** | | | | | | | | | |
| | • With cable, 3 m | 25 × 88 | 1 NO + 1 NC | A | **3SE6 605-2BA** | | 1 | 1 unit | 102 | 0.165 |
| | | | 2 NC | A | **3SE6 604-2BA** | | 1 | 1 unit | 102 | 0.165 |
| | • With M8 plug, 4-pole | 25 × 88 | 1 NO + 1 NC | C | **3SE6 605-2BA01** | | 1 | 1 unit | 102 | 0.040 |
| | | | 2 NC | C | **3SE6 604-2BA01** | | 1 | 1 unit | 102 | 0.130 |
| | **Switching magnets (coded)** | 25 × 33 | | A | **3SE6 704-3BA** | | 1 | 1 unit | 102 | 0.014 |
| | **Contact blocks** with cable, 3 m | 25 × 33 | 1 NO + 1 NC | A | **3SE6 605-3BA** | | 1 | 1 unit | 102 | 0.150 |
| **Accessories** | | | | | | | | | | |
| | **Spacers** | 25 × 88 | | D | **3SX3 260** | | 1 | 1 unit | 102 | 0.015 |
| | **Spacers** | 25 × 33 | | D | **3SX3 261** | | 1 | 1 unit | 102 | 0.010 |

| | Version | Number of sensors | Enabling/ signaling circuits | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | kg |
| **Monitoring units** | | | | | | | | | | |
| | **Safety relays with relay output, 6-fold**<br>Rated control supply voltage 24 V DC | 6 | 2 NO / 1 NC | B | **3SE6 806-2CD00** | | 1 | 1 unit | 102 | 0.200 |

For more monitoring units, see Chapters 6 and 7 and Catalog IK PI.

* You can order this quantity or a multiple thereof.